# CHELTENHAM <br> BOROUGH COUNCIL 

## Notice of a meeting of Council

## Monday, 24 September 2012

2.30 pm

Council Chamber, Municipal Offices

| Membership |  |  |
| :--- | :--- | :---: |
| Councillors: | Colin Hay (Chair), Wendy Flynn (Vice-Chair), Andrew Chard, <br> Garth Barnes, Ian Bickerton, Nigel Britter, Chris Coleman, <br> Barbara Driver, Bernard Fisher, Jacky Fletcher, Rob Garnham, <br> Les Godwin, Penny Hall, Tim Harman, Rowena Hay, Diane Hibbert, |  |
|  | Sandra Holliday, Peter Jeffries, Steve Jordan, Andrew Lansley, <br>  <br>  <br>  <br>  <br> Paul Massey, Helena McCloskey, Andrew McKinlay, Paul McLain, <br> David Prince, John Rawson, Anne Regan, Rob Reid, Diggory Seacome, <br> Duncan Smith, Malcolm Stennett, Charles Stewart, Klara Sudbury, <br> Do Teakle, Pat Thornton, Jon Walklett, Andrew Wall, Simon Wheeler, <br>  <br>  <br> Jo Teager Whyborn and Suzanne Williams <br> Rog |  |

Agenda

| 1. | A MOMENT OF REFLECTION |  |
| :---: | :--- | :--- |
| $\mathbf{2 .}$ | APOLOGIES |  |
| 3. | DECLARATIONS OF INTEREST | (Pages <br> $1-32)$ |
| 4. | MINUTES OF THE LAST MEETING <br> 25 June 2012 |  |
| 5. | COMMUNICATIONS BY THE MAYOR |  |
| $\mathbf{6 .}$ | COMMUNICATIONS BY THE LEADER OF THE COUNCIL |  |
| 7. | PUBLIC QUESTIONS <br> These must be received no later than 12 noon on the fourth working <br> day before the date of the meeting (18 September 2012) |  |
| 8. | MEMBER QUESTIONS |  |
| 9. | RECOMMENDATIONS OF THE INDEPENDENT REMUNERATION <br> PANEL (IRP) REGARDING MEMBERS' SCHEME OF <br> ALLOWANCES <br> Report of the Director of Commissioning | (Pages <br> $33-42)$ |
|  |  |  |


| 10. | JOINT CORE STRATEGY GLOUCESTER, CHELTENHAM AND <br> TEWKESBURY - HOUSING NEEDS ASSESSMENT REPORT <br> Report of the Leader | (Pages <br> $43-$ <br> $370)$ |
| :--- | :--- | :---: |
| 11. | NOTICES OF MOTION |  |
| 12. | TO RECEIVE PETITIONS |  |
| 13. | ANY OTHER ITEM THE MAYOR DETERMINES AS URGENT AND <br> WHICH REQUIRES A DECISION |  |
|  |  |  |

Contact Officer: Saira Malin, Democracy Officer, 01242775153
Email: democratic.services@cheltenham.gov.uk

Andrew North Chief Executive

## Page 1

## Council

Monday, 25th June, 2012
2.30-6.35 pm

|  | Attendees |
| :---: | :---: |
| Councillors: | Colin Hay (Chair), Wendy Flynn (Vice-Chair), Andrew Chard, Garth Barnes, Ian Bickerton, Nigel Britter, Chris Coleman, Barbara Driver, Bernard Fisher, Rob Garnham, Penny Hall, Tim Harman, Rowena Hay, Sandra Holliday, Peter Jeffries, Steve Jordan, Andrew Lansley, Paul Massey, Helena McCloskey, Andrew McKinlay, Paul McLain, David Prince, John Rawson, Anne Regan, Rob Reid, Diggory Seacome, Duncan Smith, Malcolm Stennett, Charles Stewart, Klara Sudbury, Jo Teakle, Jon Walklett, Andrew Wall, Simon Wheeler, Roger Whyborn and Suzanne Williams |

## Minutes

## 1. A MOMENT OF REFLECTION

Reverend Robert Pestell invited members to take a moment of reflection.
At this point the Mayor presented Honorary Alderman Robin MacDonald with his scroll.
2. APOLOGIES

Councillors Fletcher, Godwin and Thornton had given their apologies and Councillor Wall had advised he would be late. He subsequently arrived at 3.10pm.

The Mayor went through some house-keeping. A signing in and out sheet had been situated at the entrance of the chamber and members were asked to note the time of their arrival, if after the meeting had commenced, and the time of their departure if prior to the conclusion of the meeting in order that there would be a clear indication of which members were present at various stages of the meeting. This was something that he would look to enforce if required. He also noted that to allow flexibility no seating plan had been produced and instead the Councillor poster featuring member's names and faces had been circulated throughout the public gallery and provided to the press, though he would endeavour to introduce members when inviting them to speak.
3. DECLARATIONS OF INTEREST

Councillor Regan declared a personal interest in agenda item 9 (Petition regarding Weavers Field) as a member of the Warden Hill Parish Council.

The Mayor highlighted that the budget outturn was today being considered and suggested that as there were issues relating to the HRA, should this be debated, Directors of CBH, of which he was one, should declare an interest.

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## 4. MINUTES OF THE LAST MEETING

The minutes of the last meeting had been circulated with the agenda.
Upon a vote it was unanimously
RESOLVED that the minutes of the meeting held on the 14 May 2012 be agreed and signed as an accurate record.

## 5. PUBLIC QUESTIONS

The public questions were taken just prior to agenda item 9 (Petition regarding Weavers Field) as all of the questions received related to this matter.

The following responses were given to the 8 public questions received;

| 1. | Question from Mr Poulter to Cabinet Member Sustainability, <br> Councillor Whyborn |
| :--- | :--- |
|  | Can I ask please, why the proposed allotment project on Weaver's Field, <br> Warden Hill is still being pursued, when even our own MP Martin <br> Horwood has publicly stated his grave concerns and opposition to it, the <br> two local Parish Councils, namely Leckhampton with Warden Hill, and Up <br> Hatherley have rejected it.... <br> the former being the authority responsible for the provision of allotments <br> in our area, and the second being the Parish Council covering the area <br> which the Member proposing this project represents ... <br> and how does this fit in with the 'Localism Bill', because the provision of <br> allotments in this location will restrict 'Public Use' of this beautiful green <br> open space, in favour of a Minority? |
|  | Response from Cabinet Member Sustainability |
| Localism involves listening to all the local people and groups, not just <br> an allotment in order to grow their own produce, something which many <br> people would want to encourage. The council also has a legal obligation <br> to supply allotments. <br> Councillors are continuing to listen, and certainly open to modifying the |  |
| proposal in ways which improve the public amenity for enjoying the views |  |
| from the hill, walking dogs and so on. |  |$|$| Supplementary question from Mr Poulter |  |
| :--- | :--- |
| When you say "Localism involves listening to all.." are you aware that as <br> well as the 1020 that signed the petition there are hundreds of people in <br> Leckhampton that are against the allotments compared to the 80 or so <br> that would benefit from them? |  |
|  | Response from Cabinet Member Sustainability <br> Ilook at it differently. There are hundreds of people on the waiting list for <br> allotments and the fact is there are two groups of people saying two very <br> different things and as a Cabinet Member I must look at both and the <br> bigger picture of Cheltenham as a whole. |
| $\mathbf{2 .}$ | Question from Mrs John to Cabinet Member Sustainability, <br> Councillor Whyborn |

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|  | Back in 2005 when the Council's website referred to the exciting future <br> development in Weavers Field, a group of volunteers was formed, <br> "Friends of Weavers Field', to try and protect the area. <br> We fundraised and worked closely with John Crowther, the then Assistant <br> Director- Green Environment and Mr. James Blockly, Borough Council <br> Conservation Officer, to maintain this valuable space. Mr. Crowther <br> promised to work closely with interested residents to protect and enhance <br> the nature conservation value and bio-diversity of Weavers Field for the <br> greater benefit of all. <br> Can the Cabinet Member Sustainability advise what bio-diversity studies <br> have been done with regards to the impact on protected species such as <br> bats, slow worms etc which are regularly seen? |
| :--- | :--- |
| As the late Councillor Ken Buckland wrote as long ago as March 1997 in <br> respect of Weaver's Field, 'these small pockets of green open space in <br> our community are always worth fighting for'. |  |
| Response from Cabinet Member Sustainability |  |
| An ecological study has been completed which can be made available to <br> all, and which demonstrates that no significant impact would be made by <br> converting a part of the hill to allotments. |  |
| On the general question of future usage of Weavers' Field following the <br> transfer of the land to the Council, there were various discussions over <br> the last decade in terms of how best to use it, which I am advised never <br> really got beyond the general commitment not to build houses on it. In <br> particular the possibility to create a nature reserve was not pursued <br> because of insufficient public support, neither was the idea of a public <br> recreation facility. |  |
| Supplementary question from Mrs John |  |
|  | You talk about lack of public support for a nature reserve or public <br> recreation facility but why can't the Council just leave it as the unspoiled <br> haven that it is for people to enjoy? |
| Response from Cabinet Member Sustainability |  |
|  | The Council is in a difficult position. It's easy to say leave Weavers Field <br> and use another site but the fact is that there are only a small number of <br> sites and the Council has a statutory duty to provide allotments which it is <br> looking to do within these constraints. |
| 3.Question from Mr Smiles to Cabinet Member Sustainability, <br> Quere have certainly been discussions with the Planning department, and <br> no objections raised in principle. Weavers Field is formerly farmland. The |  |
| Councillor Whyborn |  |

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|  | conservation officer reports that the field has no special historic features or special conservation legislation controlling its development. |
| :---: | :---: |
|  | Supplementary question from Mr Smiles |
|  | I assume there is a report which formally sets out the opinion of the Planning department and given the level of public objection why do you want to deprive so many people of this beautiful place. |
|  | Response from Cabinet Member Sustainability |
|  | Only a preliminary response has been provided by the Planning department at this stage, though this was in writing. A formal response would be sought as the result of any future Planning application and this would be available to the public. I have been impressed by the arguments put forward by the public on this matter and these will form part of my consideration of whether the scheme can be modified. |
| 4. | Question from Mr Rastelli to Cabinet Member Sustainability, Councillor Whyborn |
|  | Council members are being asked to make a decision about whether or not to take the Weaver's Field proposal forward. How many of the Council have actually visited this site and experienced exactly what it is? |
|  | Response from Cabinet Member Sustainability |
|  | Council members will not be making that decision in this meeting (25/06/12), and it would be most unusual for an entire Council to visit a site. However local ward members have visited it, including myself, and it is to be expected that before any application goes to the Planning Committee, their members would visit the site. <br> Following my visits, I would add that the amenity value of the hill is not lost on me, and the Council would certainly want to take this into full account in discussions as to how and where to site allotments on Weavers Field. |
|  | Supplementary question from Mr Rastelli |
|  | Can you assure me that all members visit the site before any decision is taken? |
|  | Response from Cabinet Member Sustainability |
|  | I can't give that assurance or speak for other members, but I certainly hope they would. |
| 5. | Question from Mr John to Cabinet Member Sustainability, Councillor Whyborn |
|  | In the light of the overwhelming strength of local feeling in respect of the Weaver's Field, Warden Hill allotment proposal, has any consideration been given to a full debate being undertaken In the Council chamber over this matter? |
|  | Response from Cabinet Member Sustainability |
|  | Clearly Council members will have opportunities in the debate over the petition, and I am confident that will be conducted so as to represent the range of views. However, the constitution of the Council is such that the decision will not (and cannot) be taken by full Council. It is a decision for cabinet, and which would in turn require a full debate of the Planning committee in the Council chamber. |
| 6. | Question from Mr John to Cabinet Member Sustainability, Councillor Whyborn |
|  | Can the cabinet member confirm what consideration has been given to |

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|  | the availability of farmland in a nearby location, which I understand has <br> been offered by a farmer, to be sold or leased to the Council? |
| :--- | :--- |
|  | Response from Cabinet Member Sustainability |
|  | The Council is actively looking at land aross mainly the south of <br> Cheltenham, including farmland, council owned land, and anything else <br> which may become available, but in reality people are not eager to sell or <br> lease land. CBC is not aware of any such offer from a farmer, but would <br> be very willing to discuss such an offer if it was made. |
|  | Supplementary question from Mr John |
|  | Are you aware that Councillor Regan has details of such an offer? |
|  | Response from Cabinet Member Sustainability |
|  | No I was not aware but I would be happy to discuss this with her if this is <br> the case. |
| 7. | Question from Mr Jones to the Leader of the Council, Councillor <br> Jordan |
|  | As Friends of Weavers Field, we have had over 850 cumulative years of <br> sworn statements that support formal designation of Weavers Field as a <br> Village Green. Added to this overwhelming local demand, may we ask the <br> Leader of Borough Council to also support the application and confirm <br> this in writing with Gloucestershire County Council? |
|  | Response from the Leader |
| I'm not sure what '850 cumulative years of sworn statements' means |  |
| although hope it doesn't mean this has been an issue since 1162. |  |

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|  | Centre. The Brizen exhibition was well attended, by both the public and <br> parish council members. |
| :--- | :--- |
|  | Supplementary question from Mr Jones |
|  | Are you aware that the information presented at the Brizen exhibition was <br> incorrect and misleading? |
|  | Response from Cabinet Member Sustainability |
|  | I am not aware that the information presented at the Brizen exhibition was <br> incorrect or misleading but I am aware of these claims and do not accept <br> these assertions. The information presented was presented in good faith. |

## 6. COMMUNICATIONS BY THE MAYOR

The Mayors first few weeks in office had been very busy and had included the unveiling of a plaque for Lillian Faithful which had provided him with an insight into a great legacy. The Torch Relay event at the racecourse had demonstrated Cheltenham's ability to organise and execute events so well. The crowd at the racecourse grew to a magnificent number which was replicated along the route throughout Cheltenham. He thanked everyone that had been involved for a great job and noted that officials commented that the Cheltenham event had been the best so far. The Mayor had been honoured to go to Wembley Stadium to support the Cheltenham Robins in the football play-offs, though unfortunately they hadn't won the match. Other events included the Mayor's Charity launch at Oakwood School and he urged anyone that had not yet visited the Civic Award winning School to do so as it was a truly impressive building. The residents of Rosehill Street had shown real tenacity by going ahead with their Jubilee event as planned despite the 3 missing properties, the result of a gas explosion and he had been impressed by the coming together of trading and social communities across Cheltenham in celebration of the Jubilee. He had attended an ARRC beating of the retreat event at Imjin Barracks and been involved in some Royal visits. He hoped that members would be able to join him on some of the events throughout the year, including those in support of his charities.

## 7. COMMUNICATIONS BY THE LEADER OF THE COUNCIL

The Leader of the Council reminded members that the deadline for applications to the Promoting Cheltenham Fund was this coming Friday (29 June), so there was still time to apply for funding. Members were also invited to propose any essential environmental improvement schemes for which the deadline was the end of July.

He advised members that the July Council meeting, which was marked in the diary as 'if required' was in fact required and he hoped members would be available to attend.

Finally, he congratulated Councillor Massey on the birth of his second daughter and was pleased to report that mother and baby were doing well.

## 8. MEMBER QUESTIONS

The Leader apologised for the delay in circulation of the member questions and responses, explaining that factual information for one of the responses had not been received until just prior to the meeting. The Mayor suggested that in future the questions and responses should be circulated and any missings be provided verbally at the meeting.

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The following responses were given to the 6 member questions received;

| 1. | Question from Councillor Garnham to Cabinet Member Corporate Services |
| :---: | :---: |
|  | Would the relevant Cabinet member please explain why public requests for information from the Council are denied but then an explanation given that if the public want information then it can be released through a Freedom of Information request? This has happened recently when the public have been denied the information regarding exactly how many people wrote in objecting to Cllr Whyborn's proposals for Weavers Field, and also when the projected cost of the ill thought out project were asked for. <br> Would the relevant Cabinet Member explain how much money is spent on complying with a FOI request? <br> Would the relevant Cabinet Member agree with me that it would be far better to give information freely (apart from confidential matters) rather than make everyone go through the FOI route with all the hassle and cost to the public that is involved. |
|  | Response from Cabinet Member Corporate Services, Councillor Walklett |
|  | Most requests for information received by the council are responded to by the service area as 'business as usual' and do not need to be considered a Freedom of Information Request. The council continues to try to publish as much information as possible on its website to assist the public and also to reduce the resources required to respond to Freedom of Information Requests. Last year the council responded to 520 Freedom of Information Requests. <br> Although numbers of Freedom of Information Requests have been steadily increasing over the last five years $(2006 / 7=139)$ at an average of c.30\% per annum, the incremental Freedom of Information Requests mirror the experiences of other local councils and both the NHS and Police. <br> There are occasions where members of the public and councillors seek the same information, as highlighed by Councillor Garnham. In such cases, out of courtesy, consideration is given to councillors regarding the timing of when information is publicised. I, as I am sure would all my councillor colleagues, would encourage officers to release information, wherever possible in such instances, to the public and councillors at the same time and certainly without lengthy delays. <br> Freedom of Information requests vary in length and complexity and as a result can take from 5 minutes to several days of officer time to produce a response, with each response involving different officers with different pay grades. The council tries to minimise the resource required to response to requests. In the present case, the request for information was made by telephone. A written request would have been recorded as a Freedom of Information request, and a written response provided. Although the time and cost of providing a written response to a written |

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|  | request would have been a little more than providing the same information by telephone, it would have resulted in a record which would have been easily available to those who may need to access it in the future, and circulated to Members who may have an interest in the request and response. |
| :---: | :---: |
|  | Supplementary question from Councillor Garnham |
|  | Does the Cabinet Member Corporate Services agree that it was wrong for the public to have to go down the route of a Freedom of Information Request? |
|  | Response from the Cabinet Member Corporate Services |
|  | I am confident that there are no attempts to push members of the public to make Freedom of Information Requests. It's worth noting that the standard level of complaints has remained the same which would suggest that Freedom of Information Requests are not being used to avert complaints. |
| 2. | Question from Councillor Garnham to Cabinet Member Sustainability |
|  | Would the relevant Cabinet Member please tell Council how many unused brown bins, for garden refuse, are currently in the Council's possession, and their value? Further to this can Council be told the total cost of all the brown bins purchased in the last five years? Could the Cabinet Member also confirm there are no plans to sell off these bins to other councils at a price less than what they were purchased for i.e. can it be confirmed the Council is not facing a loss over the purchase of unused brown bins? |
|  | Response from Cabinet Member Sustainability, Councillor Whyborn |
|  | The Council had to calculate approximately the number of residents that might take up the brown bin garden waste service and placed an order accordingly. We built in additional numbers for damaged, broken or stolen bins as it takes a minimum of 12 weeks to order new bins. There are greater discounts for large orders and the availability of storage capacity at the Swindon Road Depot meant it was more feasible to have bins in storage rather than risking running out of bins. <br> There are 10,850 brown bins in stock at a value of $£ 167,632.50$ which remain a Council capital asset and therefore do not represent any form of financial loss. <br> The Council has just sold 1,000 bins at 'cost' to Tewkesbury BC which enabled them to not have to wait up to 12 weeks for delivery and it is anticipated that this arrangement could be repeated with other local authorities over the coming months. <br> We currently have 11,883 subscriptions for garden waste bins. <br> Total of 23,800 brown bins purchased in the last 5 years at a cost of £367,710 <br> Officers are managing the bin stocks in the most cost effective way, and bin transfers (rather than sales) within the Gloucestershire Waste Partnership are done at cost and that this is something Cheltenham has |

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|  | benefited from in the past. |
| :---: | :---: |
|  | Supplementary question from Councillor Garnham |
|  | Cabinet are looking at the budget and considering how to allocate the £149k underspend but how much time are they spending debating the money that is tied up in these brown bins? |
|  | Response from Cabinet Member Sustainability |
|  | This matter is a concern to Cabinet but we are where we are and I feel I have already provided a comprehensive explanation of the issue. |
| 3. | Question from Councillors Driver and Seacome to Cabinet Member Sustainability |
|  | The recent wet weather has highlighted even more the problem of blocked road gullies and drains, particularly in Lansdown Ward. Whilst it is the responsibility of the County Council to clear the drains themselves it is the responsibility of the Borough Council to ensure there is not excessive mud and kerbside vegetation is left on the paths and in the gullies for such long extended time, which is all being washed into these drains and blocking them. This is causing a problem of flooded streets and footpaths very quickly and often. At some junctions the problem has nearly caused an accident with cars aquaplaning. <br> Given the failure of the current cleansing system would the Cabinet Member explain to Council how he will ensure that there is an effective street cleansing programme in place to stop the problem of blocked drains every time it rains? |
|  | Response from Cabinet Member Sustainability, Councillor Whyborn |
|  | Scheduled mechanical sweeping is conducted across Cheltenham year round and assessments are also carried out by officers three times a year to assess levels of litter and detritus. CBC proactively organise mechanical sweeping and litter picking of areas which are graded as being below standard and whilst one cannot guarantee 'to stop the problem of blocked drains every time it rains in the Lansdown Ward' an inspection will be organised to determine the extent of the problem, and to assess whether or not there are any extenuating circumstances which need to be reported to Gloucestershire Highways. |
|  | Supplementary question from Councillor Driver |
|  | This doesn't really answer my question as I am asking for over and above; would you consider Sunday street cleaning? |
|  | Response from Cabinet Member Sustainability |
|  | I can't see any relevance to your original question of gulleys. I am however, happy to sit down with members and officers and discuss the matter further. |
| 4. | Question from Councillor Driver to Cabinet Member Built Environment |
|  | Would the Cabinet Member responsible for parking enforcement please look into placing more enforcement officers out in the streets outside the centre of town. In Lansdown we have the commuter parking both for those working in the town and in the area of the train station for other commuters. May times there is parking on corners, double yellow lines, encroaching the resident drives and turning circles. The parking the |



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|  | This doesn't answer my question as I am not referring to pay \& display <br> areas my question relates to areas of private parking, can't we have more <br> enforcement officers in private streets? |
| :--- | :--- |
|  | Response from Cabinet Member Built Environment <br> As I have tried to explain in my previous answer there is a fundamental <br> problem at the moment in that there has been a change of focus as GCC <br> are increasingly moving to pay \& display. GCC are also bringing to an <br> end the Agency agreement and as such CBC will not be filling current <br> staff vacancies. The fact is that resources are declining, with <br> enforcement officers currently spending 80\% of their time in the town <br> centre and only 20\% in outlying areas, but I am happy to look at what <br> officers do and see if it can be more efficient. |
| 5. | Question from Councillor Bickerton to the Leader, Councillor Jordan |
| Can the Leader please provide some summary feedback on the vital JCS <br> public consultation which completed in February, we need to know <br> exactly what Cheltenham residents consider to be important in our <br> strategy to 2031. For example the balance between environment and <br> economic growth, provision for homes to support the town's <br> demographics and inwards migration, the scenario given support and any <br> concern over the preferred option as presented in our draft JCS. |  |
| Response from the Leader |  |
| The detailed consultation responses are available on the JCS website. <br> Summaries of the responses are currently being finalised by the JCS <br> team and will be published next week. A response to the representations <br> will be published in due course. I have asked that access to these <br> documents is made as easy as possible. |  |
| While l'm pleased that over 3000 consultation responses were received, <br> members will appreciate that dealing with these represents a <br> considerable demand on stretched resources and takes time to complete. <br> I can nevertheless report that some of the headline issues for <br> Cheltenham include: <br> - Leckhampton is by far the most commented-upon area in respect <br> of the impact of potential development in a range of contexts <br> including Green Belt and natural environment; |  |
| - "Scenario A" has met with a degree of support - although often |  |
| qualified support - from a considerable number of respondents; |  |
| the evidence base and methodology for ascertaining levels of new |  |
| housing is challenged by many; |  |
| concerns about the impact of new development on existing |  |
| infrastructure - such as highways and education - are frequently |  |
| raised. |  |


|  | As Councillor Chard will know anyone can put in a planning application at <br> any time so it is not possible to ensure that Leckhampton green fields, or <br> indeed anywhere else, are not subject to an application for housing <br> development. <br> Once an application is received the Council is obliged to consider it in <br> accordance with national and local planning policy and other material <br> considerations. <br> Bearing this is mind my first level of activity relates to the National <br> Planning Policy Framework (NPPF) which sets the context for any local <br> plan. While my response to the consultation on the NPPF was submitted <br> over 6 months ago I continued to work with Martin Horwood, MP for <br> Cheltenham, and others in lobbying government to amend the draft NPPF <br> so that there is more local discretion to protect sites based on <br> environmental issues. While this has met with some success in the final <br> document, the degree will become clearer as the document is interpreted <br> by the Planning Inspectorate. <br> The second level of activity was to encourage people to respond to the <br> 'developing the preferred option' document. This included radio and <br> newspaper interviews and delivering leaflets. I am pleased that there <br> were over 3000 responses to the document as this will help in developing <br> a local plan that takes account of the views of local people. In addition I <br> have continued to chair the Members Steering Group of the Joint Core <br> Strategy with the aim of achieving a Joint Core Strategy that all 3 councils <br> feel they can sign up to. If we don't manage to agree a sound local plan <br> across the JCS area this will reduce the chance of protecting areas like <br> Leckhampton from future development. |
| :--- | :--- |

## 9. PETITION REGARDING WEAVERS FIELD

Agenda item 5 (public questions) was taken just prior to this item as all the questions that had been received related to this matter.

The Mayor referred members to the process for dealing with petitions at Council which had been circulated with the agenda. He invited Mr Rastelli, as petition organiser, to present the petition;
"We the undersigned are very much against the current preliminary proposal which would see up to 88 allotments on part of Weavers Field. The Council say that only 3.1 acres of the 8.1 acre field would be turned into allotments however this does not take into account the creation of a large car park area in

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order to cope with a significant number of vehicles. This area is the only open green space in this locality and the preliminary proposal is not acceptable".

Mr Rastelli outlined the scale of objection to the proposal and why. He explained that Weavers Field was a space frequented by hundreds of people each week and highly valued by those that used it for walking, playing and socialising. The field and hill were also popular with those with an interest in birds and wildlife as it supported a number of wild birds and a variety of other wild life including bats and slow worms. The proposals would prevent access for the general public to the majority of the field, serving only a comparatively small minority and prevent access for the vast majority.

Leckhampton with Warden Hill Parish Council whose responsibility it was to provide allotments in this area had expressed, in writing, their wish that this area remain a public amenity. The neighbouring Parish Council, Up Hatherley, had also put in writing this same message.

The Friends of Weaver's Field had applied to have this space recognised as a Village Green and were urging the Cabinet Member Sustainability to listen to the people of Warden Hill and withdraw the proposal.

The full statement given by Mr Rastelli is attached at Appendix 1.
The Mayor invited questions from members regarding the background report produced by officers.

As a point of clarification, Councillor Stennett queried the position of Planning Committee members making statements on this issue given that they may have to consider a future planning application. The Monitoring Officer reassured Planning Committee members that this was not a prejudicial matter and involvement in the debate would not prejudice them against any future planning application, though any such application should be approached with an open mind.

A number of members requested that the figures relating to the cost of the proposal be made available, questioning the logic behind undertaking consultation on a proposal that hadn't been properly costed. When members were told that these figures were not available, Councillor Smith moved a procedural motion calling for a 15 minute adjournment of the meeting in order that these figures could be provided. This motion was lost (Voting: (FOR) 12, (AGAINST) 18).

The Cabinet Member Sustainability explained that the decision had been taken to consult on the initial proposals before putting costs together, the plans had not been expensive to produce and officers were confident that the proposal would be deliverable given that there was no cost associated with purchasing the land. $£ 500 \mathrm{k}$ had been set aside from the sale of the Midwinter site, though a full costing would be compiled and assessed before anything was taken forward. Whilst he was unable to present any outline figures these were available and he was happy to make them available to members on another day.

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A member commented on the suggestion that the council had put forward the proposal for Weavers Field in response to a statutory duty to provide allotments and highlighted Paragraph 9 sub-paragraph (1) of Schedule 29 of the Local Government Act 1972 which states "If there is a Town or Parish Council in a particular area, then the responsibility for allotments within the boundaries of that town or parish lies with them. The District Council, in this case, has no powers to act in any manner over allotments". In view of this, any allotments on Weavers Field would in fact be private allotments rather than statutory as was the implication and the question was posed would they count toward the statutory obligations for allotment provision.

The Cabinet Member Sustainability responded by acknowledging that the location of Weavers Field was within a Parish Council but elaborating that because of its location it would draw in people from neighbouring wards including Up Hatherley and would therefore significantly contribute to the council's obligations for allotments.

The Mayor invited the Cabinet Member Sustainability as the Cabinet Member whose portfolio was most relevant to the petition, to speak on the subject of the petition.

The Cabinet Member Sustainability firstly thanked Mr Rastelli for his articulation of the concerns of the petitioners and officers for their work today, including the background report circulated with the agenda.

As Cabinet Member he had to consider not only the demands of people on the waiting lists for allotments but also the concerns raised by the general public who feared that a much loved public amenity would be lost. The Council had a statutory duty to satisfy demands for allotments and the majority of these were needed in the South of Cheltenham, where land was scarce. Attempts were being made to negotiate sites in the Leckhampton area and where very little council owned land existed in this area, other options were being explored, including the purchase and/or long term lease of land, which was made difficult by the fact that land owners tended to want to hold on to land in this area or offer very short leases in the hope that it would become valuable for housing. Some of the alternative options were not considered particularly attractive or cost-effective for the taxpayers of Cheltenham.

He felt it would be easy for him to simply withdraw the proposal given the level of objection but considered that this would be unfair for the people who have been on the allotment waiting list for some years and could in fact provoke a legal challenge. He noted the petitioners words and suggested that as it were the case that the preliminary proposal was not acceptable he proposed to sit down with Mrs Rastelli, representatives of the petitioners and/or ward members and discuss compromise schemes which would address some of the concerns whilst still delivering a number of allotments.

It was important to note that the decision on how to assess the objections received was a decision for Cabinet, in addition to which there would be a requirement to table any proposal with the Planning Committee.

He proposed the following resolution;

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1) That the Cabinet Member and officers seek a discussion with representatives of the petitioners and with ward councillor with a view to improving amenity value of the scheme and that;
2) Revised proposals are brought to Cabinet which take this into account.

The Cabinet Members full statement is attached at Appendix 2.
The Leader of the Councillor confirmed that he would second the proposal put forward by the Cabinet Member Sustainability.

Councillor Regan thanked the Cabinet Member Corporate Services for his offer to discuss the issue with representatives of the petitioners, suggesting that she would represent those that had signed the petition and many more.

A number of members urged the Cabinet Member Sustainability to recognise the value of Weavers Field as a habitat and a space enjoyed by many for a variety of reasons. The invitation for further discussion with the representatives of the petitioners and ward members was welcomed but these members felt that given the overwhelming opposition to these proposals from Parish Councils, over 1000 residents who signed the petition, Borough Councillors and the local MP, they should be withdrawn and alternative sites considered. These members acknowledged that the allotment issue was an immotive one and questioned why supporters of the proposal were not present at the meeting. Some of these members voiced their concerns that the Cabinet Member Sustainability would take forward these proposals regardless and was closed to any alternatives.

Councillor Prince left the meeting at 3.35 pm .
In response to concerns raised by members regarding the lack of legal and financial implications within the report produced by Officers, the Mayor explained that this was simply a background report in relation to the petition rather than a report as part of any decision relating to the Weavers Field proposal. Such a report would include full implications when it was considered by Cabinet.

As seconder, the Leader could not support calls for the Weavers Field proposal to be withdrawn completely at this stage. Consultation on the initial proposal had been undertaken but there was more detail still to be worked through, which included any costings. He emphasized the difficultly that faced the council, allotments had to be situated somewhere, though this did not at all invalidate the concerns that had been raised in the petition or through the course of the debate today.

In closing, the Cabinet Member Sustainability admitted that the threat of legal challenge had always been there and that the weight placed on this would be decided at a later date. He assured members that at this stage nothing had been ruled out but that a determining factor would be the availability of other suitable sites. He was interested to hear about alternative sites and invited people to share with him the details of other sites along with details of who owned the land so that they could be considered further. He gave assurances
that if a suitable site was identified he would have no qualms about withdrawing the Weavers Field proposal.

Councillor Harman demanded a recorded vote and six other members were in support.

Upon a vote it was

## RESOLVED that:-

1. the Cabinet Member and Officers seek a discussion with representatives of the petitioners and with ward councillors with a view to improving amenity value of the scheme;
2. Revised proposals are brought to Cabinet which take this into account.

Voting:
(FOR: 23) Councillors Barnes, Britter, Coleman, Fisher, Flynn, C. Hay, R. Hay, Holliday, Jeffries, Jordan, Lansley, Massey, McCloskey, McKinlay, Rawson, Reid, Stewart, Sudbury, Teakle, Walklett, Wheeler, Whyborn and Williams
(AGAINST: 12) Councillors Bickerton, Chard, Driver, Garnham, Hall, Harman, McLain, Regan, Seacome, Smith, Stennett and Wall

The meeting was adjourned at 4.15 pm for tea.

## 10. COMMISSIONING PROTOCOL

The meeting resumed at 4.35 pm. Councillors Coleman, Holliday and Williams were no longer in attendance.

The Cabinet Member Corporate Services introduced the commissioning protocol which set out the principles and practices introduced by the Council as part of the strategic commissioning approach that had been adopted in December 2010. The short protocol described how commissioning would be approached and monitored. He felt the content of the report was self explanatory and invited members to accept the recommendations.

A number of members raised concerns about the draft protocol that was being presented for approval. Concerns included the way in which the council was approaching commissioning. Some members felt that this was not being undertaken in a cohesive manner and the way in which priorities were established and decisions made did not demonstrate a consistent approach.

The principal concern of these members was that of accountability. They considered it nonsensical for officers of Cheltenham Borough Council to respond to concerns or complaints from the public advising them that their concern/complaint would be dealt with by a third party (e.g. UBICO). This also raised the issue of ward member's ability to resolve issues. Ultimately members felt that the Lead Cabinet Member should be accountable to scrutiny and were this reflected in the protocol they would feel able to support the recommendations. Whilst supportive of the principal of keeping costs down, the

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worry was that the approach would compromise the council's ability to deliver the quality of service expected by the public.

Members speaking in support of the recommendations did so as in their view there was no question of the Lead Cabinet Member abdicating their responsibilities or accountability. They considered that in some circumstance,s UBICO for example, would be better placed to respond to a query or complaint than officers within the Commissioning Division, though admitted that this was a practical issue that should be monitored and Overview and Scrutiny would be crucial in this process. The formation of any shared service, Local Authority Company, etc, would not be a conclusion but rather a beginning.

The Cabinet Member Corporate Services was comfortable that his regular attendance at Overview and Scrutiny meetings would provide a degree of accountability and as part of the Joint Management Liaison Group he would maintain an overview of commissioning. It was his aim to communicate the ongoing gains of commissioning and assured members that seminars, of which there had already been 7 or 8 , would continue to be organised to ensure members were informed, engaged and able to raise any concerns.

The Cabinet Member Corporate Services agreed that the roles and responsibilities of the Lead Cabinet Member as set out on page 4 of the protocol would be amended to state 'is accountable to scrutiny' in place of 'updates scrutiny'.

Upon a vote it was CARRIED with 1 abstention and 1 against.

## RESOLVED that;

1. The commissioning protocol as amended be endorsed by Council;
2. Monitoring and review of the commissioning protocol be delegated to the Overview and Scrutiny Committee.

## 11. FINANCIAL OUTTURN 2011/12 AND QUARTERLY BUDGET MONITORING TO MAY 2012 <br> Councillor Teakle left the meeting at 5 pm .

The Cabinet Member Finance introduced the report and referred members to the amended appendix 11 that had been circulated at the meeting. The report highlighted the Council's financial performance for the previous year which set out the General Fund and Housing Revenue Account revenue and capital outturn position for 2011/12. The information contained in the report had been used to prepare the Council's Statement of Accounts for 2011/12.

The Cabinet member was pleased to report that during the year, the potential in year budget deficit had been addressed and as a result a revised balancedbudget had been achieved. The council's success in achieving this was down to the hard work by officers across the council in reducing costs and boosting incomes. He outlined the intentions for making use of the revenue budget savings are set out in section 3 of the report and the budget carry forward requests in section 4 . He referred members to an error in appendix 7 where the
carry forward bid for democratic services of $£ 7,000$ should have referred to $£ 5,000$ for the support and rollout of ICT remote access facilities for members and $£ 2000$ to support the new scrutiny arrangements.

He highlighted the favourable outcome regarding the Icelandic Banks and the potential uses of the High Street Innovation Fund grant where Cheltenham had been awarded $£ 100,000$ of the $£ 10$ million allocated by Government to help revive high street retail. He concluded that overall the report represented a sound piece of work which made sensible use of the council's resources.

In response to questions from members, the Cabinet member gave the following responses:

- He confirmed that businesses had been consulted on the potential uses of the High Street Innovation Fund and a number of their suggestions had been picked up.
- In response to a suggestion that the reinstatement of a planning appeals officer would be preferable to boosting the planning appeals reserve, he said in his view these two issues were not connected.
- Asked how the funding of business rate discounts would be "targeted at the areas where it can have the greatest impact", he explained that currently there was a focus on the town centre. However it would be necessary to strike a balance between targeting sufficient funds in an area to make a difference and identifying areas of greatest need across the borough.
- A member had suggested that the proposed $£ 9,000$ cost for installation of cameras to measure footfall in different parts of the town centre should be supported by big retailers and the money would be better spent on the business rate relief scheme. In response the Cabinet Member said that businesses in the town centre spent a large amount of money on marketing and this scheme was a sensible way to help them target their resources more appropriately. Major businesses would be making a contribution and the Cheltenham Development Task Force would also be involved in reviewing the results.
- Asked whether the Council could encourage more young people to attend events in the town by refunding their bus fares, he noted the point but the Council did have a limited budget and had already allocated $£ 50,000$ to support youth provision in the town and offered facilities at leisure@.
- The additional funding for grass verge cutting had been allocated to make up for the shortfall in County Council funding in 2012/13. If this shortfall continued then the council may have to look at building additional funds into the revenue budget in future years.
- He referred the question about where the funding from the sale of Midwinter appeared in the budget papers to the Director of Resources who advised that it did not appear because the report was an analysis of the outturn of the revenue budgets or capital schemes for the year 2011/12.
- He confirmed that tackling homelessness was a high priority for the council despite the underspend in the previous. The homelessness strategy had highlighted the complex needs of homeless people and the carry forward bid would allow this important work to continue.


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- He would provide a written response to members on the areas where the alcohol grant referred to in appendix 7 would be applied.
- He would discuss with officers the question of whether it was sensible to continue reducing staff development budgets when staff needed to develop new skills sets to work effectively in the new commissioning environment.

Upon a vote it was (unanimously)
RESOLVED that the following recommendations be approved;

1. Receive the financial outturn performance position for the General Fund, summarised at Appendix 2, and note that services have been delivered within the revised budget for 2011/12 resulting in a saving (after carry forward requests) of $£ 149,777$.
2. Recommend that Council approve the following:
$2.1 £ 214,700$ of carry forward requests as amended (requiring member approval)at Appendix 7
2.2 The budget saving of $£ 149,777$ be used as follows:

- $£ 43,600$ to fund a grant to CHAC as outlined in para 3.3
- $£ 43,900$ for providing recycling boxes and bins as outlined in para 3.6
- £62,277 to strengthen the Planning Appeals reserve as outlined in para 3.7

3. Note the treasury management outturn at Appendix 9.
4. Approve the allocation of the High Street Innovation Fund award grant as set out in section 6.
5. Note the capital programme outturn position as detailed in Appendix 11 and approve the carry forward of unspent budgets into 2012/13 (section 8).
6. Note the position in respect of section 106 agreements and partnership funding agreements at Appendix 12 (section 9).
7. Note the outturn position in respect of collection rates for council tax and non domestic rates for 2011/12 in Appendix 13 (section 10).
8. Note the outturn position in respect of collection rates for sundry debts for 2011/12 in Appendix 14 (section 11).
9. Receive the financial outturn performance position for the Housing Revenue Account for 2011/12 in Appendices 15 to 17 (section 12).
10. Note the outturn prudential indicators Appendix 18 and recommend

# that Council approve the revised prudential indicators for 2011/12, marked with an asterisk (section 13). 

11. Note the budget monitoring position to the end of May 2012
(section 14). (section 14).

## 12. REVIEW OF THE COUNCIL'S PERFORMANCE 2011-12

The Cabinet Member Corporate Services introduced the report which summarised how the council had performed in 2011/12 in regard to the published milestones, performance indicators and outcomes set out in the 2011/12 corporate strategy action plan. The results set out in the report highlighted a good record of achievement particularly given the current difficult circumstances. $93 \%$ of milestones had been completed at the end of the year and $83 \%$ of targets for performance indicators had been met. The report also recognised the important contribution of Cheltenham Borough Homes in helping the council to meet its targets.

In response to a question he read out the figures of the costs of planning appeals which had been circulated to members of the Overview and Scrutiny Committee following their review of this report at their May meeting. These figures demonstrated that there was a downward trend in the number of planning appeals which had reduced by $2 \%$ over the last four years.

Referring to the outcome of a clean and well maintained environment, a member added a note of caution about the focus on waste as members of the public were starting to identify problems with litter and the situation could easily tip the other way. Another member suggested that there should be more information on proposed actions for addressing any areas which had not gone well and gave the reduced numbers at the Tourist Information Centre as an example. In response the Cabinet Member said that visitor numbers to the Centre had increased and $£ 25,000$ had been allocated to incorporate the centre into the Art Gallery and Museum when it opened in 2013.

Upon a vote it was unanimously

## RESOLVED that the performance review 2011-12 be approved.

## 13. NEW CONDUCT REGIME

The Cabinet Member Corporate Services introduced the report which set out the proposed arrangements for adoption by the Council in order to comply with the new conduct regime set out in the Localism Act 2011 and the recently approved Regulations. He apologised for the late circulation of the report but the regulations had not been published until 8 June 2012 and therefore officers had been under particular pressure to produce the report in the required timescales. He highlighted the new obligation to disclose the pecuniary interests of spouses and partners as part of a Member's Register of Interest declaration. Members were also asked to approve a new Code of Conduct.

Councillor McLain indicated his intention to abstain from any vote as although he had supported the original intention of the Standards regime, he was not happy with how it had turned out. He advised that following a detailed briefing by their Monitoring Officer, the Members at the County Council had achieved cross-party consensus in support of a common approach across all seven local

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authorities and a common code to include parish councils in Gloucestershire. They would be looking for proposals to come back in the Autumn. Hence he considered that this report was a good piece of work but was premature.

A member asked whether a wife or spouse have the right to refuse to have their interest disclosed and did they have any rights to privacy under the Human Rights Act. The Borough Solicitor acknowledged that this part of the legislation had come as a surprise and that parish councillors had already expressed some concerns. Members could have a defence if they had no knowledge of their spouse's pecuniary interests but otherwise the obligation was on the Member to make the disclosure and not the spouse. If they failed to do this they could be liable to criminal proceedings. She emphasised that these were statutory rules and the council could not decide to amend them. She assumed that the rights of spouses would have been taken into account during the construction of the legislation.

It was noted that Step 1 in appendix 3 should refer to $C B C$ and not TBC.
The Leader referred members to recommendation 8 in the report regarding the appointment of Independent Persons. He advised that an Interview Panel consisting of himself, Councillor Garnham and Councillor Godwin, had interviewed three candidates on 20 June 2012. The panel was unanimous in its recommendation to the Council to appoint Mr Duncan Chittenden and Mr Martin Jauch as Independent Persons for Cheltenham Borough Council.

Before the vote, the Mayor highlighted to Members that the regulations came into force on 1 July and therefore the council was obliged to put arrangements in place in accordance with these regulations. He also reminded Members that the Borough Solicitor had been on hand before the Council meeting to answer any questions members had about the proposals.

Upon the vote the recommendations (excluding 9) were CARRIED with 3 abstentions.
Upon a separate vote on recommendation 9, this was CARRIED.
Voting For: 28, Against:O, Abstain: 1

## RESOLVED:

1. That the draft Code of Members' Conduct, attached at Appendix 2, be APPROVED and ADOPTED with effect from $1^{\text {st }}$ July 2012.
2. That the Cheltenham Borough Council Register of Interests comprises those Disclosable Pecuniary Interests and other interests as set out in Appendices A and B of the Code of Members' Conduct at Appendix 2.
3. That the Council's Constitution be amended to include within the Council, Cabinet Committee and Sub-Committee Rules of Procedure the following:
4. 'A Member must withdraw from a meeting (including from the public area/gallery) during the whole of the consideration of any item of business in which the Member has a Disclosable Pecuniary Interest, or in which the Member has an "other" interest where, as a
consequence of Paragraph 10(4) of the Council's Code of Conduct, the Member is required to leave the meeting and not participate or vote on the matter, unless the Member is permitted to remain through the granting of a dispensation.'
5. That the arrangements for dealing with complaints, as set out in Paragraph 3 of this report are ADOPTED, together with the flowchart and assessment criteria set out at Appendix 3.
6. To establish a Standards Committee, including a Hearings SubCommittee, as set out in Paragraphs 3.13-3.17 of this report, together with the Terms of Reference set out at Appendix 4 to be incorporated within Part 3C of the Council's Constitution.
7. That Councillors Barnes, Fisher, Flynn, Godwin and Wheeler and two Conservative members to be advised be appointed to be members of the Standards Committee in accordance with the political balance requirements (4:2:1).
8. To ask the Independent Remuneration Panel to review the Council's Scheme of Allowances consequent upon the changes to the Standards Committee.
9. That Mr Duncan Chittenden and Mr Martin Jauch as Independent Persons for Cheltenham Borough Council be appointed in accordance with the recommendation of the Interview Panel.
10. That Part 3D (Responsibilities for Functions - Officer NonExecutive Functions) of the Council's Constitution be amended to appoint the Borough Solicitor and Monitoring Officer to be the Proper Officer to receive complaints in writing regarding allegations of failure to comply with the Code of Conduct and that authority is delegated to the Monitoring Officer as follows:
i. to determine, after consultation with the Independent Person(s), whether a complaint should be investigated and to arrange such investigation;
ii. to seek local resolution of complaints without formal investigation where it is possible to do so;
iii. to close a complaint if the investigation finds no evidence of failure to comply with the Code of Conduct;
iv. to agree a local resolution where an investigation finds evidence of a failure to comply with the Code of Conduct, subject to consultation with the Independent Person(s) and the complainant being satisfied with the proposed resolution;
v. to grant dispensations in accordance with Paragraphs 2.10 and 2.11 of this report;
vi. to make any other minor consequential changes to the Council's Constitution as the result of the adoption of the arrangements set out in this report.

The Cabinet Member proposed that Council record a vote of thanks to the current members of the Standards Committee which would be ceasing on the 30th of June 2012. The independent members were Jon Leamon, John Cripps,

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David O'Connor, Duncan Chittenden and the chairman Simon Lainé and Parish Councillors were David Iliffe and Gloria Coleman.
14. APPOINTMENTS TO OUTSIDE BODIES

The Leader referred to the covering note which had been circulated with the additional agenda papers for this meeting. Following agreement by the Group Leaders, Cabinet approved the majority of appointments to the outside bodies at their meeting on 19 June 2012. There were three appointments outstanding where consensus has not been achieved between the political groups and therefore these have been referred to Council as set out in the recommendations in the report.

He also advised that Councillor Reid had now been appointed by Cabinet to the Friends of Leckhampton Hill to fill the remaining vacancy. He reminded Members that there was still a vacancy for the Hillview Community Centre should anyone wish to put their name forward.

Upon a vote it was

## RESOLVED THAT:

i) Councillor Barnes be appointed as the Council's observer on the Everyman Theatre Board Voting (For CIIr. Barnes 19, for Cllr. Harman 8)
ii) Councillor McCloskey be appointed as the Council's representative on the Cotswold Conservation Board Voting (For CIIr. McCloskey 19, for CIIr. Hall 9)
iii) Councillor Colin Hay be appointed as the Council's observer on the Board of UBICO
Voting (For Cllr. Colin Hay 19, for Cllr. Harman 8)

## 15. NOTICES OF MOTION

Councillor Wall left the meeting at 5.50 pm .

Councillor Driver proposed the following motion which was seconded by Councillor Regan:

Given recent exposé reports in the press both national and international regarding the sex trade and exploitation of young women because of people smuggling and the sex trade in Cheltenham - this Council resolves to:-

1. Work collaboratively with the Gloucestershire Safeguarding Childrens Board, Gloucestershire Safeguarding Adults Board and Child Exploitation and Online Protection Centre to develop a dedicated council strategy
2. Investigate potential impact of licensed sex industry and other venues which might impact in four areas (vulnerable adults / young adults / children / people smuggling)
3. Commit to re-invest funding from Cheltenham's night time economy into the fight against sexual exploitation

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In introducing the motion, Councillor Driver suggested that the council needed to give more thought to the night-time economy. There was much said about what it did for Cheltenham but in her view all it did was make a mess on the streets and provide profits to a corporate company elsewhere. She acknowledged that the police and other organisations had done a lot to try and combat the sex trade and exploitation and the council had also done their bit, but there was a necessity for all organisations to work together. They needed to be particularly aware of vulnerable and neglected young people, possibly with learning difficulties, as she felt a lot of them were being missed.

Members were generally supportive of the sentiments behind the motion and that protection of vulnerable young people must be a priority. If there were issues in Cheltenham then they needed to be addressed and this should be in partnership with other organisations. This kind of activity was an abomination and must be treated very seriously not least because it was hidden under the surface. Some members referred to a recent Channel 4 documentary which had featured a raid in the town on a property were young women were being trafficked. One member did point out that Cheltenham had been featured in the documentary as a typical town to highlight that even a respectable place like Cheltenham could have these problems. Another member highlighted the coverage in the Daily Mail during race week about the sex trade in the town. There may be an opportunity for the Borough Council to take a more proactive stance and there was a need to make members and officers more aware of what was being done and how to report any cases or suspicions.

Although members supported the general thrust of the motion, there were some concerns about the precise wording and resolutions. There were some doubts expressed about whether it would be legitimate to use the revenue from the night-time economy for this purpose as there were strict regulations concerning its use. The night-time economy also employed a lot of people in Cheltenham and therefore did bring benefits to the town. It was also important to distinguish between the licensed sex industry and the criminal offence of exploitation for sexual purposes. The latter was certainly not an 'industry'. The proposal that the council should produce its own strategy was challenged as progress could only be made by working in partnership with other organisations, particularly the police.

Councillor Garnham, as chairman of the Police Authority, acknowledged that there was a problem in Cheltenham but there was a need to be careful about the facts. He updated members on the Pentameter operation carried out by the police in 2008 to address this issue which had been featured in the Channel 4 documentary. As a result there had been 150 arrests and three of those had been in Cheltenham. The initiative in Gloucestershire was seen as an example of good practice. He explained that the Detective Inspector heading up the Public Protection Bureau was already working in this area and should be a point of contact for the council if they wanted to pursue it.

Councillor Barnes and Councillor Seacome, as previous and current chair of the Council's Licensing Committee, highlighted that people trafficking was not operating within the licensed trade but was undercover and unacceptable. The Licensing Committee had made every effort to ensure that establishments were

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properly licensed and indeed an establishment not operating within its licence had been closed down during the last race week. The council should not be complacent but they were reasonably confident that the officers and police involved in licensing were ensuring that establishments were being operated within the legal framework. The council had only licensed one sex shop in the last 10 years for the intention of selling adult videos. Lap dancing and other similar venues typically applied for a Temporary Event Notice which allowed them to operate for a limited period such as race week. They were then closed down once the notice expired.

As the County Cabinet Member responsible for this area, Councillor McLain advised that he received regular reports on this issue. He highlighted the work already being done by the safeguarding boards and suggested that the council may want to hear more about the potential projects that they could suggest. The council may wish to see whether it could make better use of the wealth of information held by Cheltenham Borough Homes in addressing the trafficking issue. Finally a considerable amount of research had been done into the links with the licensed sex industry and this was available on the intranet.

During the debate it had been suggested that the matter be referred to the Overview and Scrutiny Committee with the option of setting up a scrutiny task group which would report back to Council. Councillor Smith, as chair of the committee, suggested it would need a period of at least six months to carry out a review and therefore a report back to Council in December will be appropriate. The O\&S committee could initiate the task group at its next meeting on 16 July 2012.

The Cabinet Member Housing and Safety supported the sentiment of the motion and clearly if there were issues they needed to be addressed. As a safeguarding organisation the council was already taking some action and he would welcome the support of a working group to look at this in more detail.

In her summing up, Councillor Driver was delighted that the motion had prompted a good debate on this issue.

Upon a vote the motion was CARRIED unanimously and it was also
Resolved that the matter be referred to the Overview and Scrutiny Committee to set up a working group to review the issue and report back to Council in December 2012.

## 16. TO RECEIVE PETITIONS

None received.
17. ANY OTHER ITEM THE MAYOR DETERMINES AS URGENT AND WHICH REQUIRES A DECISION
There was no urgent business.

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## Minute Item 9

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## Friends of Weaver's Field

Ladies and Gentlemen of Cheltenham Borough Council.
We: The 'Friends of weaver's Field' Warden Hill, present this petition to you.
Over 1,000 people signed the petition in objection to a Proposal from Councillor Whyborn, to change the majority of our beautiful green open space, in Warden Hill, Cheltenham.

We wish to state unequivocally that our hill, Warden Hill, on Weaver's Field is not a site that needs altering.
ie majority of signatories are from Warden Hill and Hatherley. But past residents hearing of the plans signed, many quoting their happy childhood here.

Were this land unused, unloved, or unwanted by the population we would not be here today. Your legal department has received many letters of objection from local residents outlining so many, very valid reasons why this proposal should not be proceeded with.

We cannot believe that, or understand why, you should want to get rid of this wonderful green open space

To outline just a few of these objections..... the land is used weekly by hundreds of people, young and old for walks, exercise, fruit picking, ball yames, kite flying, bird watching, nature trails, picnics and has been so-used for over 50 years.

The field and hill are teaming with wild birds, All wild birds are protected under the Wildlife and Countryside Act, and the field supports a variety of other wild life, including Bats and Slow-worms also protected under the Act.

This is an area formerly promised in Perpetuity to remain as 'Green Open Space'.

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The placing of allotments on it would require a large hard-standing for a car park, a wide gravel path behind many of the houses and a high fence, cutting off by far the better part of the land and virtually the whole of the hill viewpoint.... Amounting to hundreds of metres around the site, preventing access to the majority of the field for the general public.

Providing an amenity for the minority and preventing access for the vast majority is illogical and unfair. The hill on Weaver's Field is Warden Hill! It has been in existence since at least 1648 when it was named Warden's Hill.

As recently as Jubilee Tuesday - the $4^{\text {th }}$ of June, we held our large street party in the entrance to the field, and on the same evening at 10pm -many others from around the estate gathered on top of the hill to view the Jubilee beacons ... using the hill for what is believed was its original purpose ... namely a '"/arden's Hill, a lookout point.... And we were clearly able to see at least 7 of the Fire Beacons from 2 counties.

The Leckhampton with Warden Hill Parish Council, whose responsibility it is to provide allotments, have written to you, informing you that they wish to see this land remain as it is; A valuable public amenity!

The neighbouring Up Hatherley Parish Council - from Mr.Whyborn's own ward have written to you with the same message.

We the Friends of Weaver's Field have made application to have this beautiful green open space recognised as our Village Green, supported by sworn evidence of a total of over 870 years of collective usage.
'arden Hill, as a ward currently sits $15^{\text {th }}$ out of twenty for the least amount of green open space in Cheltenham according to your own figures, please don't push us lower.

We urge you therefore to hear our petition, to listen to the people of Warden Hill and to reject this proposal.

Thank you...

## Page 29 <br> DEBATE ABOUT PROPOSED ALLOTMENTS ON WEAVERS FIELD

Thank you, Mr Mayor.
(Preface) First of all thank Mr Rastelli for clearly articulating the concerns of the petitioners (ad-lib wording), and thank officers for very substantial work to date, including the helpful briefing report for this meeting.

- The question of putting allotments on Weavers Field has been a very difficult one, and has involved not only listening to the demands of people on the waiting lists for allotments in an area where suitable land is scarce, but also listening to the needs of neighbours, and the concerns of the general public who have issues about possible loss of amenity in an area where public open space is limited, and hills are rare. Moreover CBC has a moral and political commitment dating from when the council acquired the Weavers Field land in the 1990's, not to build houses on Warden Hill:
- In addition the Council has a statutory duty to satisfy demands for allotmients, albeit the details of this duty are not well defined in statute law.
- Although many issues have been rightly raised, and not only by the petitioners, I believe the three which carry most weight are these: 1) the need to provide allotments in the south of Cheltenham within a reasonable distance of the applicants' homes 2) the amenity value of being able to walk on the hill, and to enjoy the view from the top; 3) the need to maintain sufficient off-street areas for dog walking.
- Land in the south of Cheltenham, which is where most allotments are needed, is very scarce, and the Council is also trying to negotiate sites in the Leckhampton area, and potentially will look at areas further to the west of Warden Hill. There is very little council owned land, so other options are also being explored. Nobody should pretend this is easy, and people who own land in the area are tending to hold it - or offer it on very short leases of in some cases only months - in the hope that it will become valuable for housing. In order to complete its allotment strategy, the Council may well be faced with trying to buy or rent land outside the borough, or in the last resort to


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compulsorily purchase land within it. No options are particularly attractive or costeffective for the taxpayers of Cheltenham. My view, and advice from officers, is that we will need a number of sites to satisfy demand, and there are very limited choices, particularly within reasonable travelling distance of the Hatherley/Warden Hill area.

- It would be very easy to simply turn round and withdraw the proposals. However this would be unfair to the several hundred people who have been waiting for some years for allotments, and in the limit could provoke a legal challenge that the Council was not serious about its responsibilities. We cannot simply take the easy options; however I note the petitioners' words "the preliminary proposal is not acceptable" and in the way that the petition is worded I could accept that, and so I would propose to sit down with Mr Rastelli and a couple of his colleagues, plus the ward councillors, to discuss compromise scheme(s), which would address the amenity concerns whilst still providing a substantial number of allotment plots.
- Whilst it's both right and helpful that full council debate this, as we are about to do, under the council's constitution, the decision on how to assess objections to date rests with cabinet. In addition there is a requirement to bring any proposal before the planning committee. It will be part of that committee's job to look at all aspects of the application, including matters which have concerned residents, such as whether they would be overlooked any more than they are already, and/or concerns about drainage, car parking and the like. Preliminary indications to date from planning officers are there are no reasons in principle why a planning application should not be made and considered.

So I propose we resolve the following at the conclusion of the debate:

1) That the cabinet member and officers seek a discussion with representatives of the petitioners and with ward councillors with a view to improving amenity value of the scheme and that 2) revised proposals are brought to cabinet which take this into account.

## New Conduct Regime - Appointment of Independent Person(s)

1. Council is referred to section 4 of the Report on the new Conduct Regime (agenda item 13) which refers to the appointment of Independent Person(s).
2. At its meeting in May, the Council was asked to approve the advertisement process for the appointment of up to 3 Independent Person(s) in order to provide flexibility pending consideration as to how the new Conduct Regime might be implemented within Cheltenham Borough Council.
3. The arrangements which are now recommended by the Constitution Working Group are contained within the report previously circulated. The recommendation envisages that the Independent Person(s) will, as well as fulfilling the statutory requirements, be consulted by the Monitoring Officer as part of the initial assessment of complaints and will be co-opted, non-voting members of the Standards Committee.
4. Whilst it is impossible, at this stage, to predict what the workload for the Independent Person(s) may be, the Monitoring Officer's recommendation is that the Council should appoint 2 Independent Persons at this Council meeting. If, having implemented the new arrangements, it is apparent that further appointments are necessary; the Council can review the position.
5. A Member Panel (Cllrs. Jordan, Garnham and Godwin) interviewed 3 candidates on the $20^{\text {th }}$ June 2012. Each of the candidates' suitability for the role was assessed against the Job Description and Person Specification approved by the Council and consideration was given to whether skills were apparent which would enable them to gain the respect and confidence of members of the Borough Council and its 5 Parish Councils.
6. The Member Panel was unanimous in its recommendation to the Council to appoint Mr. Duncan Chittenden and Mr. Martin Jauch as Independent Persons for Cheltenham Borough Council. A brief synopsis of their relevant experience is set out below.

Mr. Duncan Chittenden - Resident in Cheltenham Borough, has wide experience of employment in the public sector and currently an Independent co-opted member of the Council's Standards Committee which position will cease on the $30^{\text {th }}$ June 2012. Also is Chairman of Gloucestershire Police Authority Standards Committee, having served on that Committee for 4 years.

Mr. Martin Jauch - Resident in Gloucestershire adjacent to Cheltenham Borough and was a Metropolitan police officer for over 30 years. Has experience as a coopted Independent Member initially of a Conservation Board and then of Cotswold District Council Standards Committee which he has chaired for 2 years and has, in that capacity, dealt with complex cases and Hearings.
7. In accordance with the Localism Act 2011, the appointment must be approved by a majority of the members of the Council.

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# Cheltenham Borough Council 

Council - 24 September 2012
Recommendations of the Independent Remuneration Panel (IRP)
regarding Members' Scheme of Allowances

| Accountable member | Council |
| :--- | :--- |
| Accountable officer | Director of Commissioning, Jane Griffiths |
| Ward(s) affected | No |
| Significant Decision | The council's current scheme of Members' allowances, (08-09), was <br> adopted in December 2007. The law requires that Members' schemes of <br> allowances are reviewed annually unless they are linked to some form of <br> automatic indexation in which case they must be reviewed at least once in <br> every four years. Before an authority can review its scheme of allowances it <br> must first have considered a report from an Independent Remuneration <br> Panel (IRP). A full review was carried out by the IRP in 2010 and its <br> recommendations were approved by Council in December that year. |
| The IRP reported to Council in March 2012 with the recommendation that <br> they considered the changes to the Standards regime once the new <br> arrangements were in place. The IRP have now considered the new <br> arrangements and made recommendations regarding allowances. |  |
| The Council is required to consider the recommendations and, if acceptable, <br> to resolve to adopt them. If the Council rejects the recommendations then <br> no SRA will be payable to the chair of the new Standards Committee as the <br> existing scheme applied to the former Standards Committee which was <br> dissolved by Council in June 2012. |  |
| Recommendations | I therefore recommend that: <br> Council considers the recommendations set out in the attached IRP |
| report and summarised in part 5 below, and determines whether to |  |
| adopt them. |  |
| Council authorises the Director of Commissioning to implement any |  |
| necessary changes to the scheme of allowances and authorises the |  |
| Borough Solicitor and Monitoring Officer to make any necessary |  |
| changes to Council's constitution. |  |

$\left.\left.\begin{array}{|l|l|}\hline \text { Financial implications } & \begin{array}{l}\text { There is no separate budget currently identified for the payment of the } \\ \text { Special Responsibility Allowance (SRA) for the chair of Standards } \\ \text { Committee. However the £302 recommended allowance will be absorbed } \\ \text { within existing Democratic budgets. } \\ \text { Contact officer: Sarah Didcote, Group Accountant } \\ \text { Sarah.Didcote@cheltenham.gov.uk, } \\ \text { 01242 264125 }\end{array} \\ \hline \text { Legal implications } & \begin{array}{l}\text { The Local Authorities (Members' Allowances) England Regulations 2003 } \\ \text { SI 2003/1021 set out a framework for the creation, implementation and } \\ \text { amendment of schemes of allowances for Members and Co-optees of } \\ \text { local authorities. The main provisions are as follows: }\end{array} \\ & \begin{array}{l}\text { Reg 10 imposes the requirement that local authorities make a scheme for } \\ \text { payment of basic allowances. Where the authority intends to pay } \\ \text { allowances in respect of other matters such as special responsibilities or } \\ \text { co-optees then these should be included within the scheme. }\end{array} \\ & \begin{array}{l}\text { Schemes of allowances must be reviewed by an Independent } \\ \text { Remuneration Panel (IRP) annually and no less than once every four } \\ \text { years where they are index linked. Reg 19 stipulates that before an } \\ \text { authority can amend or revoke its scheme it must have first considered a } \\ \text { report from its IRP and have regard to its recommendations, although the } \\ \text { authority is not bound to follow them. } \\ \text { R.20(1) requires authorities to establish an IRP either itself or in } \\ \text { collaboration with other authorities. The IRP must consist of at least three } \\ \text { Members who are not Members of the authority in respect of which they } \\ \text { are making recommendations nor disqualified from being or becoming a } \\ \text { member of an authority. }\end{array} \\ \text { Under R.20(3) Authorities are empowered to pay the expenses incurred by } \\ \text { the IRP in carrying out its functions and this includes such expenses or } \\ \text { allowances as the authority shall determine. }\end{array}\right\} \begin{array}{l}\text { R.16 and 22 impose a number of requirements as to the publication of the } \\ \text { newly adopted scheme and the recommendations received from the IRP } \\ \text { considered at the time of formulating and adopting the scheme. The } \\ \text { publicity requirements are intended to publicise the scheme adopted and } \\ \text { highlight any differences between it and the one recommended by the IRP } \\ \text { Contact officer: Donna Ruck, Solicitor, One Legal, } \\ \text { donna.ruck@tewkesbury.gov.uk, Tel: 01684 272696 }\end{array}\right\}$

| Key risks | The determination of allowances is a sensitive subject both from the <br> perspective of Councillors themselves and the public who elect them. In <br> view of this it is important that any scheme adopted is objectively <br> reasonable and based upon some logical and fair mechanism. |
| :--- | :--- |
| Corporate and <br> community plan <br> Implications | None |
| Environmental and <br> climate change <br> implications | None |

## 1. Background

1.1 The Local Authorities (Members' Allowances) England Regulations 2003 sets out the framework within which local authorities can establish and amend schemes providing for the payment of allowances to Elected and Co-opted Members of their councils. In particular the regulations provide that schemes which are linked to an index to determine annual increases in allowances must be reviewed at least once in every four years.
1.2 When reviewing its scheme a council may not adopt a new scheme or re-adopt an old scheme without first having considered the recommendations of an Independent Remuneration Panel established for that purpose.
1.3 The existing scheme of Members' allowances in place at Cheltenham Borough Council was adopted in March 2007 and provides for basic allowances for all elected Members, special responsibility allowances (SRAs) paid in respect of identified roles and responsibilities and travel and dependent carers payments. The scheme was last reviewed in December 2010 following the full review by the IRP panel and the revised schemed agreed by Council in December that year.
1.4 In the budget agreed by Council in February 2010, Members' and Mayoral allowances were frozen for a period of 5 years in the Medium Term Financial Strategy up to and including 2014/15 and SRAs for the Leader and Cabinet Members were reduced by $5 \%$ as a budget saving. Consequently there was no need for the panel to meet in 2011. This freeze is still in operation and the IRP were made fully aware of the latest budget situation within the council.
1.5 This year the panel were convened in February to consider the new scrutiny arrangements effective from May 2012 and Members ICT. The panel considered the new standards regime in July 2012.
1.6 The next full review required by legislation will commence in September 2014 reporting to Council in December 2014.

## 2. Rationale for recommendations

2.1 The IRP considered that there was a reduction in workload and level of risk and responsibility for the chair of the new Standards Committee compared to the chair of the former Standards Committee who received an SRA of $£ 907$ per annum. They have set a new SRA accordingly.
3. Alternative options considered
3.1 The review undertaken by the IRP constitutes a thorough and reasoned analysis of the allowance rates applicable to Councillors and those co-opted to serve the council. In reaching its

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conclusions it has taken advice and gathered a range of information and considered a range of options which are detailed in their report.

## 4. Consultation and feedback

4.1 Detailed in the IRP report.

## 5. The recomendations

5.1 The recommendation and the rationale for it are set out in the IRP report but I summarise them here:

1. That the Special Responsibility Allowance (SRA) for the chair of Standards Committee under the new Standards arrangements should be set to $£ 302$ per annum, effective from 1 July 2012.
2. That all other aspects of the Members Allowance Scheme remain unchanged.

## 6. Performance management -monitoring and review

6.1 The IRP propose to review the SRAs for overview and scrutiny and Standards once they have been operating for at least 12 months to ensure the SRAs are set at an appropriate level and will require evidence of how the new roles are operating in practice.

| Report author | Contact officer: Rosalind Reeves, Democratic Services Manager , <br> Rosalind.reeves@cheItenham.gov.uk, 01242 774937 |
| :--- | :--- |
| Appendices | 1. Risk Assessment <br> 2. IRP Report |
| Background information | 1. Part 6 CBC Constitution - Members' Scheme of Allowances <br> 2. IRP report to Council 13 December 2010 | | 3. Reports to Council on the new Standards Regime 14 May 2012 |
| :--- |
| and 25 June 2012 |


| The risk |  |  |  | Original risk score(impact x likelihood) |  |  | Managing risk |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Risk ref. | Risk description | Risk Owner | Date raised | 1 | L | Score | Control | Action | Deadline | Responsible officer | Transferred to risk register |
|  | If the number of complaints was to escalate the workload on the Standards Committee may increase and result in an under estimate of the role of the chair. |  |  | 2 | 2 | 4 | Accept | IRP to review after 12 months. |  | Democratic Services Manager |  |

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# Cheltenham Borough Council <br> A report of the Independent Remuneration Panel 

## July 2012

## 1. Summary

1.1 When the panel last met on 27 February 2012 we received a discussion paper which updated us on the various issues relating to the Members Allowances Scheme. At the time we noted the imminent changes to the Standards regime and requested a further report once the arrangements were finalised.
1.2 We received a discussion paper from the Democratic Services Manager on 9 July 2012 setting out the arrangements. We considered the issues were well set out in the report and there was no need to hold a meeting. We concluded our recommendations through electronic communication and these are set out in this report for consideration by Council.

## 2. New Standards Regime

### 2.1 Standards Committee Chair and Independent Members of the former Standards Committee

The local filter arrangements, whereby local standards committees deal with complaints against their members or parish councillors, came into force in May 2007.
2.2 The Standards Board for England ceased to exist from March 2012 and local authorities were issued with the new regulations on 8 June 2012. Following this Council adopted a new local code of conduct on 25 June 2012 and opted to continue to have a Standards Committee to deal with local complaints against parish councillors or borough councillors. The report is available on the council's website. Report to Council on New Code of Conduct regime. Council approved a recommendation requesting that the IRP be requested to review the Members Scheme of Allowances consequent upon the changes to the Standards Committee.
2.3 The new legislation makes it a criminal offence to deliberately withhold or misrepresent certain disclosable interests. This could mean that serious misconduct that previously led to censure by a local authority standards committee and having to make an apology could instead possibly result in a criminal conviction.
2.4 The new Standards Committee for CBC is made up of a politically balanced group of seven elected members and two Independent Persons who will be in attendance to offer their advice to the committee but will not have a vote.
2.5 Following a report to Council on 14 May 2012 Report to Council on Independent Persons it was agreed that the Independent Person should receive an allowance of $£ 300$ per annum plus travelling expenses. In acting as the Independent Person they are not acting as an elected or co-optee Member of the Borough Council and so this allowance does not form part of the Members Allowance scheme. Therefore an additional allowance for attendance at the Standards Committee is not appropriate. Two Independent Persons were appointed by Council following a recruitment and interview process.

## 3. Assesment of the SRA for the chair of the new Standards Committee

### 3.1 Allowances relating to the former Standards Committee

The SRAs set for the chair of the committee and for the independent members were based on their attendance at 4 meeages f Qhe Standard Committee and attendance at an estimated 8 subcommittees per annum.
3.2 There were 3 elected members on the former Standards Committee and 5 independent members. The chair of the Standards Committee received an SRA of $£ 907$ p.a and each of the independent members (including the chair) $£ 302$ p.a. There were 3 places for 3 parish council representatives and they did not receive an SRA. The cost of investigating any complaints against parish councils have to be borne by the borough council and therefore it was considered appropriate that the parish councillors provided their service on a voluntary basis.
3.3 In practice the number of meetings has been considerably less and only 3 members of the committee are involved in any particular sub-committee.

| YEAR | Standards <br> Committee <br> meetings | Initial <br> Assessments | Hearing | Total |
| :--- | :--- | :--- | :--- | :--- |
| 2010 | 4 | 1 | 2 | 6 |
| 2011 | 3 | 1 | 1 | 5 |
| 2012 | 0 | 1 | 0 | 1 |

3.4 The previous SRA for the chair of the Standards Committee was determined on the basis of 12 meetings per year, a MEDIUM level of experience and knowledge and a HIGH level of responsibility and risk. Using the current basis of calculations, the SRA came out at $£ 907$ per annum and this was our recommendation.
3.5 Under the new regime, the Monitoring Officer will be responsible for considering the initial complaint in consultation with the Independent Person(s). This replaces the convening of an initial assessment sub-committee which is required under the current system to meet and decide whether the complaint warrants further investigation. There will only be a Hearing sub-committee if the Monitoring Officer advises that that the complaint warrants further investigation. This should reduce the number of trivial complaints which come before the committee. The Chair of the former Standards Committee also attended the annual national conferences but this will no longer take place as the Standards Board for England has been abolished.
3.6 The committee is no longer a statutory committee and initial determination is by Monitoring Officer in consultation with Independent person. We feel both these factors reduce the level of responsibility and risk for the chair. We acknowledge there is a risk of reputational damage to the council and members if complaints are not handled appropriately and sensitively by the committee but we feel this is MEDIUM.
3.7 Thus the new SRA would be calculated on the basis of 3-4 committee meetings per year with a MEDIUM level of experience and knowledge given the high degree of support from the Monitoring Officer. We would assess the level of responsibility and risk as MEDIUM.
3.8 Using the current basis of calculations this comes up with an allowance for the chair of the new Standards Committee as

## Recommendation

That the chair of the new Standards Committee should receive an SRA of $£ 302$ per annum

## 4. Summary

4.1 As there were no other matters that the panel were asked to consider, we advise that all other parts of the Members Allowance Scheme remain unchanged and we ask Council to consider the recommendation set out in this report.

Panel Members:

| Mr Paul Johnstone (chairman) | Director of Operations, RR Donnelley <br> Global Document Solutions Panel <br> Previous Member for Tewkesbury BC <br> IRP |
| :--- | :--- |
| Mr Quentin Tallon (vice-chair) | Cheltenham TUC and Panel Member <br> for Gloucestershire CC IRP |
| Mrs Patricia Dundas | Gloucestershire Hospitals |
| Mrs Joyce Williams | Retired Public Servant |

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# Cheltenham Borough Council 

Council-24 September, 2012

## Joint Core Strategy for Gloucester, Cheltenham and Tewkesbury Housing Needs Assessment Report

| Accountable member | Councillor Steve Jordan, Leader |
| :---: | :---: |
| Accountable officer | Andrew North, Chief Executive |
| Ward(s) affected | All |
| Key Decision | Yes |
| Executive summary | The issue which generated most responses to the consultation earlier this year on "Developing The Preferred Option" for the Joint Core Strategy (JCS) was the methodology used to calculate future housing requirements for the area. In response to these concerns independent consultants (Nathaniel Lichfield and Partners 'NLP') have been engaged to review the JCS methodology and make appropriate recommendations. <br> The purpose of this report is to note the progress being made on the evidence base for establishing the objectively assessed need for housing in the JCS area. |
| Recommendations | That members: |
|  | 1. Note NLP's review that the demographic methodology used to establish housing requirements for the JCS area for the period from 2011 to 2031 as part of the "developing the Preferred Option" document, was appropriate at the time, but that the data upon which the methodology relied will not in future be maintained by Gloucestershire County Council and should be based upon Office of National Statistics (ONS) and Department of Communities and Local Government (DCLG) data, because this will be consistently available and subject to on-going updating. |
|  | 2. Note NLP's commentary and advice regarding the consultation responses. |
|  | 3. Agree that a demographic projection solely based on latest ONS and CLG data indicates a population growth of 44,700 . This would generate housing need of 28,500 dwellings for the JCS area for the period from 2011 to 2031 using NLP's methodology. |
|  | 4. Agree that "objectively assessed need" for the JCS area should be based upon local job projections and the alignment of housing and employment provision. Also to agree that in preparing the JCS Preferred Option document, further work will be carried out to understand the level of economic growth assumed in the demographic, Cambridge Econometrics and Experian Business Strategies Ltd projections and work with the Local Enterprise Partnership to establish the level of economic growth for the JCS area during the period up to 2031 and the potential implications that |

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this may have on the level of housing required.
5. Note that economic projections from Cambridge Econometrics and Experian Business Strategies Ltd forecast housing provision in a range between 32,500 and 43,220 dwellings to align proposed job growth and housing provision for the JCS area for the period from 2011 to 2031.
6. Agree that in preparing the JCS Preferred Option Document further work will be carried out to understand the current trend in household size and the implications on the level of housing required.
7. Agree that the JCS needs to balance environmental, social and economic issues and that the social and environmental impact of the "objectively assessed housing need" will be considered in preparing the Preferred Option version of the plan.

| Financial implications | The JCS authorities are preparing the Preferred Option Joint Core <br> Strategy which is due for consideration by each of the Councils in 2013. It <br> is therefore essential that agreement is reached on the objectively <br> assessed need if they are to continue to progress to the next stage of the <br> document. Should the recommendations be accepted, there will be no <br> financial implications associated with this report given that the JCS is <br> being prepared from within existing budgets. |
| :--- | :--- |
| Should the recommendations of this report not be accepted by the Council, <br> then there is likely to be a considerable delay in the production of the <br> Preferred Option document. This could also result in work on the JCS <br> being suspended This will increase the risk of speculative planning <br> applications for all three JCS authorities in advance of the development <br> plan process. |  |
| It is also important that the JCS progresses quickly in order to progress the <br> associated Infrastructure Delivery Plan and any Community Infrastructure <br> Levy preparatory work. |  |
| A delay in agreeing the JCS may result in difficulties in defending <br> inappropriate development which may lead to the need to incur significant <br> expenditure to challenge decisions made by the planning inspector. |  |
| Contact officer: Mark Sheldon , mark.sheldon |  |
| @cheltenham.gov.uk, 01242 |  |

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| Legal implications | The Joint Core Strategy forms part of the Council's statutory emerging <br> development plan and it is essential to have a 'plan led'system if the <br> planning process is to deliver sustainable growth. The key <br> recommendation in this report is to agree the process by which the <br> objectively assessed need for new homes in the JCS area will be <br> determined. <br> In the absence of an up to date JCS, and supporting Local Plan, Local <br> Authorities are vulnerable to challenge when they are unable to produce a <br> robust 5 year housing land supply (HLS). <br> In the absence of a 5 year HLS Local Authorities are having imposed upon <br> them, by the Secretary of State, planning permissions which need not <br> necessarily comply with the current or emerging Local Plan or any of the <br> emerging Strategies in the JCS. <br> It is therefore essential that Local Plans and the JCS are progressed <br> expeditiously if the threat of adverse planning decisions being forced upon <br> Local Authorities is to be avoided. <br> Contact officer: Neil Weeks, neil.weeks@tewkesbury.gov.uk, 01684 |
| :--- | :--- |
| HR implications <br> (including learning and <br> organisational <br> development) | There are no staffing or Trade Union implications. |
| Contact officer: Julie McCarthy, julie.mccarthy |  |
| @cheltenham.gov.uk, 01242 |  |

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| Key risks | The JCS authorities have an up-to-date Risk Register and this is monitored on a regular basis, however, the risks associated with this report comprise: <br> 1. One or more authority not agreeing the recommendations in this report. Should this occur, the preparation of the JCS Preferred Option Document will be delayed. This would have further implications for subsequent examination and adoption of the document. Delay will also have implications for ensuring that the development of the area remains plan-led, avoiding speculative planning applications being submitted. In order to assist the Council in this decision, Members have been provided with up to date and independent evidence which supports the recommendations. <br> 2. The approach to establishing the objectively assessed need is inconsistent between Councils. It is critical that all Councils agree that the methodology set out in Appendix 1 and the recommendations contained within this report represent a prudent approach to determining the objectively assessed need for new homes and jobs in the JCS area. Without this agreement the Joint Core Strategy programme will be unable to progress. Similar to the risk above, this is likely to increase the likelihood of the area failing to be plan-led, in the likely event that applications are submitted in advance of JCS adoption. In order to assist the Council in this decision, Members have been provided with up to date and independent evidence which supports the recommendation. <br> 3. Failure to progress the Joint Core Strategy will also compromise the preparation of other development plan documents for the authority, such as Local Plans. The JCS is the strategic planning document for the area and detailed development plan policy will come forward through Local Plans. As the development plan needs to be internally consistent, work on district plans should accord with the policies and allocations within the strategic level JCS. |
| :---: | :---: |
| Corporate and community plan Implications | Any significant delay in progressing the JCS, having particular regard to the provisions of the National Planning Policy Framework (NPPF), will have implications across a range of areas including potential environmental, social, economic and financial impacts. |
| Environmental and climate change implications | The JCS is subject to a statutory Sustainability Appraisal Process which incorporates the requirements of Strategic Environmental Assessment. |

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## 1. Background and Key Issues

Paragraphs 1.7 to 3.5 below comprise the agreed professional advice of the Joint Core Strategy officer team (Cheltenham Borough Council, Tewkesbury Borough Council and Gloucester City Council) having regard to the report of Nathaniel Lichfield \& Partners included at Appendix 3 together with the provisions of the National Planning Policy Framework and other material planning considerations. Identical officer advice is being given in reports to all three Joint Core Strategy authorities.
1.1 The Joint Core Strategy "Developing the Preferred Option" consultation document was published for public consultation between December 2011 and February 2012.
1.2 The consultation generated considerable public interest and over 3,300 responses were submitted raising a wide range of issues. The issue which generated most responses was the methodology used to calculate future housing requirements for the area. A report summarising the consultation responses has been published on the Joint Core Strategy website, although at this stage the comments are published without any formal response from the three councils. A full response to the comments received will be contained within the consultation report that will accompany the next formal publication of the Joint Core Strategy - Preferred Option.
1.3 In commenting on the Developing the Preferred Option consultation document, many respondents have challenged the reliability of the methodology and the data used in the calculation of future housing requirements along with raising several other related issues. Housing is a key part of the plan strategy and it is therefore essential to address this point so that the Joint Core Strategy progresses on the basis of robust evidence. In response to these concerns, independent consultants (Nathaniel Lichfield and Partners or NLP) have been engaged to review the JCS methodology and make appropriate recommendations.

## Establishing housing requirements and identifying objectively assessed need

1.4 Members will be aware that the NPPF sets out a clear commitment to sustainable development and positive growth:-

- "local planning authorities should positively seek opportunities to meet the development needs of their area;
- Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change, unless:
- any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework as a whole; or
- specific policies in this Framework indicate development should be restricted." (para 14)
1.5 The "specific policies" referred to above would include those for protected sites such as Sites of Special Scientific Interest, land designated as Area of Outstanding Natural Beauty or Green Belt and locations at risk of flooding.
1.6 Whilst development plans have always been required to identify and make provision for future housing requirements, the NPPF now requires the JCS authorities to identify the "objectively assessed need" for housing and other development before proceeding with the preparation of the Preferred Option. In this context, it should be noted that the NPPF is not simply informal guidance. The JCS will need to demonstrate that it is consistent with the NPPF or risk being found unsound.


## Nathaniel Lichfield and Partners (NLP)

1.7 Given the need to identify the Objectively Assessed Need and taking into account the level of scrutiny the JCS housing requirements have been subjected to, the three Councils have therefore

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commissioned independent consultants (Nathaniel Lichfield \& Partners - NLP) to:-

- assess the approach previously taken in terms of population projections, household estimates and dwelling requirements;
- review the consultation issues frequently raised relating to these matters;
- Provide a clear methodology for the distribution of housing numbers across the JCS are and the necessary policy wording/framework to support this. This should be for the overall JCS requirement, district requirements and the Gloucester and Cheltenham wider policy areas; and
- provide a clear understanding of the impact of the NPPF on housing requirements and recommend a methodological approach that will satisfy the associated evidential and soundness tests.


## Housing and population evidence base

1.8 The first task undertaken by the consultants was to review the housing and population evidence base supporting the 'Developing the Preferred Option' document and establish the objectively assessed need for housing within the JCS area. The starting point for this is the Council's Housing Background Paper that was published alongside the Developing the Preferred Option document in 2011. This sets out a housing requirement for the three authorities based upon information contained within the locally-derived Gloucestershire County Council population projections.
1.9 In summary, the consultants have found that the methodology used in the Housing Background Paper was appropriate to inform the Developing the Preferred Options Document and that there were no serious flaws in the approach. However, the consultants advise that certain elements of the information used to inform the work in 2011 are in need of revision because more up to date and reliable sources of data to are now available. Unfortunately, due to reduced resources, Gloucestershire County Council is no longer undertaking its own demographic projections and so it is necessary to rely on alternative sources. The consultants have recommended appropriate revised data sources in their report. Members will note that the need to monitor and review evidence as it emerges is a normal part of the plan preparation process to ensure that the evidence base underpinning the plan is up-to-date and sound.
1.10 From their work NLP have identified that in applying current data to that methodology, a housing need figure of about 30,000 dwellings over the plan period would be generated ${ }^{1}$. However, their recommendation is that this level of housing fails to take proper account of the economy and will not result in a sound or robust Objectively Assessed Need for development over the plan period. In addition NLP have recommended that there is no sound evidence to support any requirement lower than this.
1.11 In reviewing the previous work, the consultants have also advised that the Scenario A consultation option presented in 2011/12 is not robust as it fails to recognise the distinction between housing need and housing supply. It therefore does not reflect the level of housing need that exists in the area. As such, NLP advise that it would not be considered as sound by an Examination Inspector. Officers concur with this view.
1.12 In reviewing the Housing Background Paper work and making their recommendations, the consultants were also asked to consider any key issues arising from representations submitted to the Councils via the public consultation on housing and population projections. A full response to the general issues raised is included within their report attached at Appendix 1 setting out how these have influenced their recommendations.(see appendix 4 of NLP report)

[^0]
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## Economic forecasts

1.13 Whilst NLP have concluded that the methodology used to date in the preparation of the JCS was appropriate, it is important for members to note that this work was undertaken and completed prior to introduction of the NPPF and particularly the new requirement to establish the "objectively assessed need" for development. Having regard to these changed evidential requirements, NLP have recommended that "objectively assessed need" should be based upon economic forecasts and not just demographic evidence alone. On this basis they have included within their report at Appendix 1 advice for the JCS authorities on the level of housing need that would be associated with up-to-date economic forecasts.
1.14 In order to establish this and understand the economic potential of the JCS area, NLP have used economic forecasts from two independent sources. The first forecast by Experian predicts that the area has the ability to generate an additional 15,500 jobs by 2031. The second forecast by Cambridge Econometrics predicts that the area has the potential to generate an additional 27,000 jobs by 2031. Whilst these two independent forecasts might indicate that the area has the potential to generate between 15,500 and 27,000 jobs over the plan period to 2031 , this also highlights the difficulty in understanding the reliability of economic forecasts and the need for further work to be undertaken..
1.15 Given that NLP are recommending that the objectively assessed need figure should be based upon economic projections and the need to align housing provision to jobs, they recommend that 15,500 jobs would require at least 32,500 new dwellings, whilst the forecast for 27,000 new jobs would indicate a need for at least 41,300 additional dwellings.
1.16 It is therefore critically important that in order to move forward and establish the objectively assessed need for housing in the JCS area the authorities use and explore the evidence provided by both Experian and Cambridge Econometrics to establish for themselves the level of jobs to be provided. From this further work an understanding and appreciation of the area's potential for economic growth, in terms of future jobs, will inform the objectively assessed need for housing.
1.17 This would also conform with the NPPF requirement for local authorities to "plan proactively to meet the needs of business". It is planned that over the coming months further work is undertaken with particular input from the Gloucestershire Local Enterprise Partnership to clarify the future economic potential of the area and ensure that the JCS Preferred Option adequately addresses and supports local needs and the potential for economic growth.
1.18 It will also be critical having regard to economic considerations that the JCS is flexible enough to allow adjustments in policy or in development requirements as circumstances change. To this end the established principle of "plan, monitor, manage" will become an important element of the plan strategy.
1.19 In addition to the further work required by all three authorities to assess the level of housing need in the JCS area the authorities will clearly need to consider where development should be located and when it should come forward. This will need to take into account the various constraints in the area and deliverability issues such as the provision of physical, social and green infrastructure as well as viability considerations.

## 2. Reasons for recommendations

2.1 The NPPF requires local authorities to demonstrate at examination that their plan is based upon robust, up-to-date evidence and that it has been positively prepared. This means that it is essential that the JCS authorities agree a consistent methodology for identifying housing need and plan positively to meet the need identified as a result of applying that methodology to nationally-recognised data sources

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## 3. Alternative options considered

3.1 The JCS authorities must have up to date information on the need for new homes and jobs, as required by the NPPF. As part of their assessment, NLP have considered both demographic and economic scenarios, looking at a range of data sources and projections. They have also carried out sensitivity tests to consider the implications of key factors such as natural change, international migration and alternative assumptions about commuting and unemployment.
3.2 In preparing the JCS, the authorities have available to them information from national and local data sources for both population and housing data. The 'Developing the Preferred Option' document in 2011-12 presented options for levels of development that ranged from 16,200 to 40,500 new dwellings.
3.3 In moving towards establishing the objectively assessed housing need figure for the JCS area, the consultants have reviewed the methodology in the Housing Background Paper that informed the 'Developing the Preferred Options' document, alongside alternative methodological comments received during the consultation period. In undertaking this work, they have also reviewed the use and robustness of local and national data sources to identify the most appropriate sources of data for this evidence.
3.4 Based upon their findings and as contained within their report, the consultants also explored a number of sensitivity tests. This includes testing the impacts of how various assumptions on population demographics, migration and housing demand may affect the overall need, and in turn support their final recommendation.
3.5 In conclusion, and whilst the JCS authorities have no reasonable alternative to preparing evidence that identifies the objectively assessed need for housing, the Councils' consultant in producing its recommendations has considered and tested a number of alternatives, including data, methodology and other approaches suggested through consultation.

## 4. Consultation and feedback

4.1 A member seminar led by NLP and counsel took place on $12^{\text {th }}$ July. Follow-up NLP sessions with political groups took place on $11^{\text {th }}$ September. No other consultation has been required for this report except as reported at page 2 above. The next public consultation on the JCS will be at the Preferred Option stage of plan preparation.

## 5. Performance management -monitoring and review

5.1 Recommendation 4 above entails that JCS officers, in conjunction with the LEP, establish the level of economic growth for the area to 2031. Outputs from this work to be reported through established JCS governance arrangements. Recommendation 6 will be acted upon as part of this process.

Report author: Joint
Core Strategy Team

Contact officer: David Halkyard, david.halkyard@cheltenham.gov.uk,

01242774988

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| Appendices | 1. Risk Assessment <br> 2. Nathaniel Lichfield \& Partners Executive Summary* |
| :--- | :--- |
|  | 3. Nathaniel Lichfield \& Partners Report <br> *NB figures at para 3.15 (2) on p. 17 should be $32,500-34,400$. |
| Background information | National Planning Policy Framework |


| The risk |  |  |  | Original risk score (impact x likelihood) |  |  | Managing risk |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Risk ref. | Risk description | Risk Owner | Date raised | $\begin{aligned} & \text { Impact } \\ & 1-5 \end{aligned}$ | $\begin{aligned} & \hline \text { Likeli- } \\ & \text { hood } \end{aligned}$ 1-6 | Score | Control | Action | Deadline | Responsible officer | Transferred to risk register |
| CR33 | If the council does not keep the momentum going with regard to the JCS the policy vacuum left by abolition of the RSS and the resultant delay in projections and framework cold result in inappropriate development | Andrew North | $\begin{array}{\|c\|} \hline 10 \end{array}$ <br> Aug $2010$ | 4 | 5 | 20 | reduce | Agreement across Gloucestershire districts to work collaboratively on determining housing and employment projections by the end of 2013. Econometric Housing Model received and analysis undertaken. Seminars for councillors to explain the projections. Decision to consult from all three councils and initial phase of consultation undertaken on development scenarios.Establishment of a member working group. | $\begin{aligned} & \hline 1 \mathrm{Apr} \\ & 2013 \end{aligned}$ | Mike Redman/David Halkyard |  |

## Explanatory notes

Impact - an assessment of the impact if the risk occurs on a scale of 1-5 (1 being least impact and 5 being major or critical)
Likelihood - how likely is it that the risk will occur on a scale of 1-6
( 1 being almost impossible, 2 is very low, 3 is low, 4 significant, 5 high and 6 a very high probability)
Control - Either: Reduce / Accept / Transfer to 3rd party / Close

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Nathaniel Lichfield \& Partners
Planning. Design. Economics.

Gloucester, Cheltenham and Tewkesbury Joint Core Strategy

Assessment of Housing Requirements
Executive Summary

September 2012

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All Saints Street
London N1 9RL
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## Introduction

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

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 been made in respect of housing requirement 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 National Planning Policy Framework (NPPF) upon housing requirements for the JCS area.

## Policy Context

The context to this study is the continuing reform of the planning system to deliver on localism whereby responsibility for establishing housing requirement figures for Local Plans now falls to local councils.

The NPPF provides the policy context to the establishment of housing requirements. 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 requirement figures that are set out within Local Plans are soundly rooted in a robust evidence base. A failure to meet this requirement is highly likely to result in a Local Plan being unsound.

## HEaDROOM

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 (HEaDROOM) for defining the quantum of housing that should be planned for through Local Development Frameworks.

Launched in July 2010, HEaDROOM has been used to identify future housing requirements in 70 local authority areas for both private and public sectors clients. It makes use of the industry-leading PopGroup suite of software which was developed by the Local Government Association. 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.
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 an understanding of the objectively assessed requirement.

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.

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 decisionmaking 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.

## Local Background

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 the JCS authorities including 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.
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 an employment-based projection.

The Housing Background Paper which was published by the three councils translates the population and household projections to a dwelling requirement figure and also rebases the figures to 2011, to reflect the revised JCS period of 2011 to 2031, taking account of past under- and over-supply of housing between 2006 and 2011.

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 to the Office of National Statistics' (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.

## Conclusions of approach undertaken to date

Although there are a number of matters of concern in relation to the detailed methodology that has been 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. The approach that has been taken by Gloucestershire County Council in respect of the translation from households to dwellings is not considered to be reliable due to discrepancies with the data that has been applied.

It is important that the JCS is informed by the most up-to-date information. For this reason, the data contained within the Gloucestershire Local Projection 2010 report is now not 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. ONS and CLG data represent a useful and reliable starting point for the assessment of demographic trends and dwelling requirements.

In the light of these matters, further analysis was appropriate to take account of the most recent data releases and also to reflect current best practice in undertaking demographic and housing projections.

## The Components of Housing Need

The NPPF requires consideration to be given to housing needs and supply in ensuring that "Local Plan(s) meet the full, objectively assessed needs for market and affordable housing". In so doing, it is important to distinguish these two elements as follows:

## 1 Housing needs: how many houses do we need in the local area? <br> 2 Housing supply: how / where can these houses be delivered?

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.


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.

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.

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


The identification of an objectively assessed level of housing need is dependant upon a series of assumptions relating to each of these broad factors, all of which must be reasonable and clearly articulated. The consultation responses to the JCS Preferred Option document have highlighted the existence of a series of strongly held 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.

The misconceptions that have been expressed through the consultation process are summarised below through an exploration of the things that the planning process and the JCS in particular can and cannot control:

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## Page 63

Assessment of Housing Requirements : Executive Summary
Table 2.1 Common misconceptions - the things that the JCS cannot control
The contribution of natural change to housing requirements.
Whether the housing needs of migrants should be accommodated; whether the needs of high level of in-migration of older people
into the JCS area could be reduced by controlling the supply of housing; and the extent to which the out-migration of younger people
is creating local economic difficulties.
The JCS area enjoys a high quality of life and, as such, is a popular destination for those moving from other parts of the country,
in any area and whilst it can be affected by improvements in healthcare provision, it is not something that the town planning
especially for their retirement. The evidence shows that international migration accounts for a very small proportion of total
migration into the JCS area.
It has been suggested that constraining the supply of housing would reduce in-migration into the JCS area. 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.
The planning system can therefore influence net migration although the impact of this is most likely to be felt by local younger and
working age people rather than the older people that are moving in from elsewhere.
Assessment of Housing Requirements : Executive Summary
The role of household formation in influencing dwelling requirements.
An understanding of household formation provides a basis by which an understanding of population change might be translated to
an appreciation of household growth and dwelling needs.
Household formation rates are shaped by a range of social and demographic factors. Even were population to remain static, the
number of households (and hence, dwelling need) would be expected to increase over time. Even if the population were to remain
static, it is not within the scope of the JCS to seek to shape households formation. Any efforts to do so through controlling the
supply of dwellings will not be successful and will serve to exacerbate economic imbalances and difficulties because:

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|  | The effect of the macro-economy upon the JCS area and the difficulties that exist in being able to forecast future changes at this time. |
| :---: | :---: |
|  | nomic trends can have a significant bearing upon demographic, economic and housing factors within the JCS area. the Government has repeatedly expressed its desire for the planning system to contribute towards growth, this is not control of the JCS. In spite of this, the vision for the area is to enhance the economic well-being of the area and this in an increased level of wealth. This is in line with the NPPF and, as such, the JCS should not plan for stagnation or that would not be sustainable and would not be in the best interests of local people or local communities. <br> is that over the next 20 years, the population of the JCS area will increase by both natural change and net inThe plan cannot do anything to turn this tide and should plan for the likely housing requirements that will emerge. <br> sion has had a large impact upon Cheltenham, Gloucester and Tewkesbury but the JCS should plan for growth, g that the recession and its lasting impacts will not continue forever and that growth will eventually occur. The plan spond to this and help to stimulate, shape and direct growth when it does happen. |
|  | ation of these considerations is that the actual level of housing need is not something that the JCS can control. The res local authorities to objectively assess their housing need and also to ensure that this can be met in full. In seeking s requirement, local authorities must provide clear evidence regarding the level of need that exists. Such evidence informed by reasonable assumptions and should not be affected by concerns regarding the potential housing supply. |
| By way of response to these matters, it is also instructive to understand the things that the planning process and the JCS particular can influence: |  |
| The things that the JCS can influence |  |
| Housing Supp | The Local Planning Authority can control housing supply by ensuring sufficient land is allocated for housing during the plan making process to ensure the housing requirement can be met over the plan period. An under-supply of housing can lead to more planning appeals being won given National Policy expectations for Local Authorities to have a deliverable housing supply. Un-planned development through planning appeals will result in ad-hoc growth which |

Assessment of Housing Requirements : Executive Summary

|  | cannot be strategically planned for in comparison to allocated growth with can. |
| :---: | :---: |
| Alignment between Jobs and Housing | The Local Planning Authority can influence the alignment between jobs and housing by controlling the amount of housing and employment space that is delivered over the plan period. On the basis of economic forecasts, the Local Planning Authority can suitably plan for new housing growth which will ensure the future workforce have houses to live in. |
| Commuting | The Local Planning Authority can influence commuting patterns through the planned development of jobs and housing in the area. Creating more jobs through employment development will influence higher in-commuting as the workforce is likely to travel from further afar for better opportunities. <br> If the Planning Authority however reflects future job creation through the development of housing, it will reduce commuting numbers. Providing sufficient housing in the area will result in the workforce being able to better compete in the local housing market and therefore reside closer to their place of work. |

## Revised Assessment of Housing Need

Our review of the work undertaken by Gloucestershire County Council and the JCS team has identified a need to update the projections in order to take account of the latest available information. However, given that the County Council is no longer undertaking its locally derived projections, it is necessary to rely on alternative sources.

In the light of this, our assessment has considered a number of alternative demographic and economic based - scenarios. These take account of the latest data and best practice in order to inform an understanding of the objectively assessed housing need.

The following key scenarios were tested through this study:

Table 3.1 Summary of Assessment Scenarios

|  | Office of National Statistics ONS 2010 SNPP | Reflects the most recent 2010-based ONS SNPP by applying the same core assumptions on natural change and migration. Applied 2008-based household projections and an allowance for second homes and vacancies. |
| :---: | :---: | :---: |
|  | Department for Communities and Local Government (CLG) 2008 household projections | Considers dwelling requirements implied by 2008-based CLG household projections by setting these alongside an allowance for second homes and vacancies. |
|  | Past trend migration | Considers the impacts of projecting forward longer term migration rates (domestic: 19992010; international: 2001-8) - in contrast to the SNPP which models 5 year past trends. |
|  | Natural change | Considers the housing needs that would be associated with the JCS authorities providing only for the pressures from its internal population in terms of natural change, an ageing population and changing social (household formation and dwelling occupancy) patterns. |
|  | Domestic migration | Considers the implications of there being no international in or out migration in the future (i.e. so that there would only be domestic migration) in order to test the magnitude of this component |


|  | Tests the demographic changes that would be <br> associated with the level of future employment <br> growth identified by the Cambridge |  |
| :--- | :--- | :--- |
| Cambridge | Econometrics | Econometrics baseline scenario (27,000 jobs <br> between 2011 and 2031) and considers the <br> number of dwellings that would be required to <br> accommodate that population change. |
| Projection | Tests the demographic changes that would be <br> associated with the level of future employment <br> growth identified by the Cambridge |  |
| Experian Projection | Econometrics baseline scenario (15,500 jobs <br> between 2011 and 2031) and considers the <br> number of dwellings that would be required to <br> accommodate that population change. |  |

Bearing in mind that the employment impacts of each scenario will depend upon assumptions relating to changing commuting and unemployment levels, sensitivity testing of the options was undertaken in order to consider the implications of alternative rates.

## Demographic Assessment

A series of demographic-led scenarios have been tested in order to consider what alternative projections of natural change, migration and headship rates will mean for future levels of household growth and dwelling requirements.

The graph below sets out the total number of dwellings required across the JCS area over the period from 2011 to 2031 as a result of each of these demographic-based scenarios. These are set against the Scenario C contained within the JCS ‘Developing the Preferred Option’ Consultation Document for the purposes of comparison, albeit that it should be noted that this scenario $(36,850)$ is based upon data that has now been superseded.

Figure 3.1 JCS Dwelling Requirement, 2011-2031


Four of the scenarios outlined above point towards a similar housing requirement of around 30,000 dwellings over the JCS period. This reflects the components of change that are anticipated by the latest ONS Sub National Population Projections and represents a slight increase above past trends between 2001 and 2012. However, in considering past housing delivery, it should be noted that both Cheltenham and Tewkesbury have suffered from a persistent under-delivery such that the number of completions between 2001 and 2012 amounted to only $75 \%$ of the then total requirement ( 1,710 p.a.). Applying past completion rates to project future housing requirements would serve only to perpetuate historic supply difficulties.

The zero migration scenario is not considered to be realistic as migration is, and will remain, a crucial component of demographic change. However, it is important in highlighting the reality that the need for housing is not solely a function of migration. Rather, because of changes in the formation of new households and in the way that dwellings are consumed, more houses will be required to meet the increasing demand from within the existing population.

Crucially, none of these scenarios take account of the economic implications. This raises significant concerns regarding the coherence of the JCS in terms of its alignment between the provision of jobs and new housing. The implication of this is that the CLG 2008 and ONS 2010 scenarios would both result in 11,700-14,100 and 9,100-11,400 additional jobs (respectively) being filled by those living within the JCS area whilst the domestic migration scenario would result in 6,200-8,500 additional jobs being filled by those living within the JCS area. By way of comparison, forecasts that were prepared by Experian indicated that an additional 15,500 jobs are likely to be created within the JCS area between 2011 and 2031 whilst forecasts that were prepared by

Cambridge Econometrics to inform the JCS indicated that an additional 27,000 jobs are likely to be created within the JCS area between 2011 and 2031.

The specific distribution of housing need associated with each of these demographic scenarios is set out below.

Figure 3.2 Distribution of demographic-based housing requirements (2011-2031)


Source: NLP Analysis of PopGroup Outputs

## Economic Assessment

Reflecting the vision to foster growth within the local economy alongside the Government drive for growth which is clearly stated within the NPPF, the jobsbased scenarios consider the level of demographic and housing growth that would be required to support and sustain the level of economic growth that has been identified as likely to be achieved within the JCS area. This is important in ensuring that the JCS is internally consistent in respect of the provision that it makes for employment change and housing growth.

Employment growth can be accommodated through a number of mechanisms:
1 Increased levels of economic activity;
2 Reduced unemployment;
3 Reduced net out-commuting; and,
4 Increased net in-migration.
It is likely that local job creation will cause economic activity levels to rise, unemployment to fall and net out-commuting to fall. A series of sensitivity tests have been applied in order to consider these matters in detail.

Two sets of economic forecasts were prepared - by Cambridge Econometrics and Experian Business Strategies. The CE forecasts identified that 27,000 new
jobs would be created within the JCS area between 2011 and 2031 whilst the Experian forecast identified that 15,500 new jobs would be created within the JCS area over this same period.


Source: NLP Analysis of PopGroup Outputs
3.16 The specific distribution of housing need associated with the employment-led scenarios is set out below.

Figure 3.4 Distribution of jobs-based housing requirements


## Moving towards the JCS

## Bringing the Evidence Together

Whilst it is useful to compare each of the scenarios, careful regard should be given to:

1 Their economic implications;
2 Their impact upon the demographic structure of the JCS area; and,
3 The reliance upon migration to achieve the necessary level of population change and the implications associated with any such net inflow.

Regard should also be given to the deliverability of different housing requirement figures, judged against past trend completions, land availability and viability factors, although this consideration should not serve to influence the objective assessment of housing need.

Taking account of these matters, the following conclusions can be drawn from evidence derived from each scenario.

1 The zero migration scenario ignores the reality that migration will continue to happen within the JCS area and that it will be beneficial for the area in terms of its social and economic well-being.

2 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 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 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 and a decline in the available workforce.

4 The demographic-based scenarios therefore fail to take account of the economic aspirations for the area. If used to inform JCS policy, this would result in a misalignment between jobs and housing, to the detriment of the soundness of the JCS and the health of the local economy.

5 The employment-led scenario would provide the basis for an integrated JCS. 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.

6 Recognising the differences that exist between the different economic forecasts, selection of the final figure will depend upon establishing 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. This work remains to be undertaken and may result in a housing requirement figure that falls outside of the range set out above.

7 Increasing the housing the 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.

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.

Based upon the economic-led scenarios, 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

| 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
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;

## Testing the Options

## Increasing supply of housing...

The NPPF requires local authorities to "boost significantly the supply of housing". The average rate of completions between 2001 and 2012 was 1,400 per annum - equivalent to a total supply of 28,000 dwellings over 20 years. Within this time there was a period of greater delivery, as illustrated by the fact that the peak supply was 1,900 units between 2005 and 2009 - equivalent to a total supply of 38,000 dwellings over 20 years. If achieved, the emerging future need would represent a boost in supply, as anticipated by the NPPF.

## ... Including affordable housing

On the basis that a proportion of the total need would be met as affordable homes, the jobs-led approach would be important in increasing the supply of affordable housing and thereby to help address this important component of housing need.

## Contributing towards improved sustainability

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:


## Benefits of development

The recommended level of housing within the JCS area would generate a range of benefit for the area, as follows:

1 Economic Boost, including:
i New Homes Bonus and ongoing Council Tax receipts per annum;
ii Gross Value Added (GVA) associated with the construction phase;
iii An additional annual spending by new residents per annum; and,
iv Community Infrastructure Levy investment in communities.
2 Substantial investment and income to counter budget cuts.
3 Alignment between jobs and housing to deliver the economic vision.
4 Improved supply of housing to reflect demand.
5 Enhanced supply of affordable housing.
6 Potential to stem the outflow of working age persons and to achieve a balanced community - avoiding the emerging economic time-bomb.

7 Delivery of local community benefits.
8 Delivery of a sound JCS.
9 Ability to control the scale and distribution of development.

## Moving toward a Preferred Option JCS

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.

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Assessment of Housing Needs

Gloucester, Cheltenham \& Tewkesbury Joint Core Strategy

September 2012
30919/GW/SC

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## Introduction

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.

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

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.

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.

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

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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.

It is important to distinguish these two elements as follows:

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

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

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.

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.

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HEaDROOM makes use of the industry-leading PopGroup suite of software ${ }^{1}$ 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.
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.

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.

The HEaDROOM framework is summarised below:

[^1]
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Figure 1.1 NLP HEaDROOM Framework

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

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).


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## Review of Work Undertaken to Date

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.

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

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.
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.

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.

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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


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.

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.

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

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.

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.

In addition, the Preferred Option Consultation Document also included a supplyled 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

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

## Representations

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.

A detailed response to the key issues raised by the representations is set out in Appendix 3.

## Evidence for a Gross Housing Requirement

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.

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.

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.
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.
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.

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

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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.

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

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.

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

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.

The key results associated with this scenario are illustrated below:

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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)

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.

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* | $9,100-11,400$ | $455-570$ |

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* 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
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]
## Page 100



Source: NLP Analysis of PopGroup Outputs
$3.16 \quad$ 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.

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]
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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

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.
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 below ${ }^{4}$ :

Figure 3.3 Average Domestic Migration Rates, 1999-2010


Source: ONS Population Estimates Unit

[^4]
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Figure 3.4 Average International Migration Rates, 2001-2008


Source: ONS Population Estimates Unit
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 <br> Trend Migration | Baseline Scenario <br> Migration | 2008-based <br> Household Projections <br> 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 <br> compared to Baseline Scenario <br> Migration | LT Past Trend Migration <br> compared to 2008-based H'hold <br> Projections Scenario Migration |
| :--- | :---: | :---: |
| Domestic | $-5.8 \%$ | $-3.9 \%$ |
| International | $194.6 \%$ | $6.9 \%$ |
| Total | $17.1 \%$ | $-4.6 \%$ |

[^5]
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The broad similarity between the migration inputs into each of these scenarios accounts for the comparability of the output results.

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
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) ${ }^{5}$


[^6]
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Source: NLP Analysis of PopGroup Outputs
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

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.

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.

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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

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

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.

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.

[^7]
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Source: NLP Analysis of PopGroup Outputs
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.

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


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.

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

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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

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.

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* | $6,200-8,500$ | $310-425$ |

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* 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

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.

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


Source: NLP Analysis of PopGroup Outputs
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.

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.

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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

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

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.

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 is 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.

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

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."

This objective also reflects the guidance set out within the pro-growth NPPF.
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.

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:

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Table 3.8 Employment Sensitivity Tests

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

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

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.

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.

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

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

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

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.

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
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.

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:

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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

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 2010based 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.

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.

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Figure 3.12 Demographic Change in JCS Area (CE Scenario) ${ }^{6}$


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.

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


Source: NLP Analysis of PopGroup Outputs
$3.60 \quad$ 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).

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## Experian Business Strategies Ltd

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 1997.

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

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

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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.

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


Source: NLP Analysis of PopGroup Outputs
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 be Experian Business Strategies (and that compares to the past trend figure of 1,320 jobs p.a, 2001-2010 according to ABI / BRES).

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## Summary of Scenarios

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
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 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \infty \\ & 0 \\ & 0 \\ & 0 \\ & \text { N } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ |  |  |  |  | 山 | ¢ W\% ¢ ¢ |
| Pop Change | 46,700 | 44,700 | 47,100 | 24,400 | 42,400 | 73,200 <br> 77,500 | $\begin{gathered} 54,000 \\ - \\ 58,300 \end{gathered}$ |
| Natural Change | 22,300 | 24,400 | 23,300 | 24,400 | 24,400 | $\begin{gathered} 25,300 \\ - \\ 26,000 \end{gathered}$ | $\begin{gathered} 22,800 \\ - \\ 23,500 \end{gathered}$ |
| Net Migration | 24,400 | 20,300 | 23,800 | 0 | 18,000 | $\begin{gathered} 47,900 \\ - \\ 51,500 \end{gathered}$ | $\begin{gathered} 31,200 \\ - \\ 34,800 \end{gathered}$ |

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

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

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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

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.

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.

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.

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.

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.

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.

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.

Whilst the demographic scenarios would result in an increase in the workingage 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

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.

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.

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.

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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.

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.

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.

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.

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

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.

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.

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).

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

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".

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.

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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

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.

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

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".

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.

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.

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.

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

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".

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.

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.

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.

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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

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...".

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.

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.

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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

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.

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.

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
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.

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## Conclusion

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

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

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


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## Housing Needs

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.

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.

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


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## The Objectively Assessed Housing Need

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.

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.

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.

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.

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.

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.

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.

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.

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.

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

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

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

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
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

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

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

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## Appendix 1 <br> 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\%.

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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


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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

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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 interdependency 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 <br> (Number of People) | International 'Out' <br> Migration (Number <br> 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 |

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## 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 |

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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.

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


Source: ONS
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


## 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

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.

## NLP Recommended Data Source

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.

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## 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 <br> Source | NLP Recommended Data Source |
| :--- | :--- | :--- |

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

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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 that 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.

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Table 5.6 Assessment of Domestic Migration

GCC / JCS Authorities Data Source NLP Recommended Data Source

Past trend based, taking account of the past 5 years - data from ONS.

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.

Alternative migration scenarios might be based upon longer term migration trends or specific migration figures.

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.

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## 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.

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

|  |  | From |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \mathbf{N}^{0} \\ & \stackrel{5}{\dot{N}} \end{aligned}$ |  |  |
|  | 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\% |
| ค | 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 |  |
| 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 | $10.4 \%$ | $9.1 \%$ | $15.9 \%$ |
| $\therefore$ | 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:

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Table 5.9 Migration Between Comparator Cities and the Rest of UK

|  | \% in-migration from rest <br> of UK | \% out-migration to rest <br> 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
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.

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Table 5.10 Assessment of International Migration

GCC / JCS Authorities Data Source NLP Recommended Data Source

Inflow based on local analysis using NiNO statistics for 5 year past trends.

Outflow based on IPS results for 5 year past trends.

2008 data supplied by the ONS's migration statistics unit and used within the ONS 2008-based SNPP.

Alternative migration scenarios might be based upon longer term migration trends or specific migration figures.

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 prerecession 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.

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## 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 <br> underpin the 2008-based CLG <br> household projections and applied to <br> the demographic projections for each <br> year as output by the PopGroup <br> model. |
| Government data which was used to <br> underpin the 2006-based CLG <br> household projections | These headship rates are split by <br> gender and age cohort. |

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

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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
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

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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

$3 \%$ 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.

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:

|  | Second Homes |
| :--- | :---: |
| Cheltenham | 187 |
| Gloucester | 0 |
| Tewkesbury | 55 |

NLP Recommended Data Source

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\%.

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.

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 <br> Area | $2^{\text {nd }}$ homes |  | Vacant |  | Combined |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 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:

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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 |
| :--- | :--- |
|  | The objective assessment of <br> housing need that is considered by <br> this report reflects the future <br> requirements over the JCS period, <br> between 2011 and 2031. |
| 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. |  |$|$

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.

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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 $\div(B)$ 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


#### Abstract

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.


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.

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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 <br> Sector | Weak earnings growth <br> Welfare cuts | Labour <br> force | Ageing population <br> Long term skills <br> unemployment <br> Lack of access to credit |
| Investment | Low interest rates <br> Restricted access to credit |  | Capour force participation |$\quad$| Productivity growth |
| :--- |
| Investment and |

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|  | Persistence of <br> unemployment |  | infrastructure <br> Advance of developing <br> economies |
| :--- | :--- | :--- | :--- |
| Fiscal |  |  |  |
| Austerity |  |  |  |$\quad$| Impact of cuts |
| :--- |
| Continuation of inflationary |
| pressure |$\quad$ factors | Industrial profile |
| :--- |
| Regional variations |

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

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## Appendix 3 Inputs into HEaDROOM <br> 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:

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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


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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 reregistrations 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

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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 netout 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.

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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.

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Review of Representations
Appendix 4
Response
$\left.\left.\begin{array}{l|l}\text { The reality is that over the next } 20 \text { years, the population of the }\end{array}\right] \begin{array}{l}\text { JCS area will increase by both natural change and net in- } \\ \text { migration. The JCS cannot do anything to turn this tide and } \\ \text { should plan for the likely housing requirements that will emerge. }\end{array}\right\}$

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

$\left.\begin{array}{l|l|}\hline \text { The high level of in-migration of older people into Cheltenham is } & \begin{array}{l}\text { This is not the case as may older in-migrants are likely to be } \\ \text { better able to compete in the housing market and therefore } \\ \text { ligigration levels not likely to be constrained by housing supply. } \\ \text { Rather, housing supply would have a disproportionate impact } \\ \text { upon local and younger people who are typically less able to } \\ \text { compete in the market. }\end{array} \\ \hline \begin{array}{l}\text { The suggestion seems to be that the "overall trend for JCS area } \\ \text { towards ageing population" is set in stone. The strategy should } \\ \text { seek to prevent too many retired people from moving into } \\ \text { Cheltenham. (275, 1503) }\end{array} & \begin{array}{l}\text { The trend towards an ageing population is happening at a } \\ \text { national and local level and is clearly evidenced. }\end{array} \\ \text { It is not possible to control the in-migration of certain groups of } \\ \text { people and, in any event, this is not a planning matter. The JCS } \\ \text { should seek to deliver an adequate supply of housing in order to } \\ \text { meet future needs and to prevent any adverse economic or } \\ \text { social implications. }\end{array}\right]$

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|  | 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. |
| :---: | :---: |
| 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) | There is no evidence to support this suggestion. <br> A larger component of migration relates to domestic movements. |
| What would the impact of the migration cap be upon future housing need within CGT? $(1061,1356)$ | 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. |
| Household size is not decreasing as fast as predicted. It might even be increasing, driven by economic factors $(275,1053)$ : <br> vi There is plenty of spare capacity within existing dwellings which creates an opportunity to increase average household size; <br> vii More young people are living with parents for longer; and, <br> viii Larger families are leading to larger average household sizes. <br> The fact that people are living for longer does not necessarily mean that there would be an increase in single person households. (1503) | Average household size is falling, driven by a wide range of social and demographic factors including: <br> i More people living alone; <br> ii People starting families at a later age and consequently tending to have fewer children; <br> iii An increasing family level of breakdown; and, <br> iv An increased life expectancy. <br> 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. |
| The analysis does not take account of household dissolution e.g. people dying, moving into care or moving away from the | The analysis does take full account of these issues. The number of people moving out of the area is considered through |


| area. (1356) | the assessment of net migration. Household dissolution is <br> considered through the application of household headship rates <br> by age cohort on an annual basis and through the application of <br> an allowance for the number of people that are not in <br> households (again, on an annual basis) (2008 CLG household <br> projection). |
| :--- | :--- |
| The ratio of people to households is incorrect. A figure of 1.225 | An error in arithmetic has resulted in this conclusion being <br> drawn. The figure of 1.225 relates population change to <br> household change. However, this ignores changes within the <br> existing population. The calculation should apply total <br> population to the total number of households. |
| 1399) | The area is characterised by a very low level of vacancy and it is <br> not considered that a further reduction could reasonably be <br> incorporated into the housing assessment. |
| Inadequate consideration has been given to the potential <br> reduction in the number of vacancies. (1356) | This is reflected in consideration of the labour/employment <br> implications of different scenarios and also through the specific <br> testing of the housing implications of the JCS employment |
| projections. |  |

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|  | objective; it should also seek to increase the overall well-being <br> of the area. This will include the creation of additional jobs <br> (beyond existing local need) and might also include different <br> jobs (i.e. in sectors that are not suited to those already in the <br> labour market). |
| :--- | :--- |
| The economic forecasts are not reliable - they only go up to <br> 2020 and should be reviewed in the context of more up-to-date <br> evidence. (1399) | We have now considered the implications of the CE projections <br> that informed the 2011 NLP economic report. |
| Development must be driven by demand. (275, 1503) | It is, hence the reviews of different drivers of demand and a <br> consideration of key demographic, social and economic trends. |
| (480) |  |

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$\left.\begin{array}{l|l|}\hline \begin{array}{l}\text { lots of people would leave the area (especially those of working } \\ \text { age), that it would just be retired people left and that it would } \\ \text { lead to overcrowding. Why is this? (1356) }\end{array} & \begin{array}{l}\text { market which would favour those most able to compete. } \\ \text { Invariably this would be the older, better off in-migrants. Those } \\ \text { local people that are less able to compete would then be forced } \\ \text { to relocate - resulting in economic implications for the area. } \\ \text { Those that cannot relocate might need to share space with } \\ \text { friends/family, resulting in overcrowding. This is not }\end{array} \\ \text { scaremongering but rather the very real implications arising } \\ \text { from a failure to provide adequate new housing within the JCS } \\ \text { area. }\end{array}\right]$

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## Appendix 5

## Housing Delivery in the JCS <br> 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.

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Figure 5.12 Past housing completions in Cheltenham, Gloucester and Tewkesbury


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


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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

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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.

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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 | $20 \%$ |

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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

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## Appendix 6 <br> Summary of Results for Each Local Authority

## Cheltenham

Table 5.20 Summary of Scenario Outputs: Cheltenham

|  | Demographic Led |  |  |  |  | Economic Led |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \infty \\ & 0 \\ & 0 \\ & 0 \\ & \text { No } \\ & \text { N } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ |  |  |  |  | 山 |  |
| Pop Change | 15,400 | 11,400 | 12,200 | 7,400 | 11,900 | $\begin{gathered} 26,700- \\ 28,100 \end{gathered}$ | $\begin{gathered} 22,000- \\ 23,400 \end{gathered}$ |
| Natural Change | 6,400 | 7,400 | 7,900 | 7,400 | 7,400 | $\begin{aligned} & 9,700- \\ & 10,000 \end{aligned}$ | $\begin{gathered} 9,300- \\ 9,600 \end{gathered}$ |
| Net Migration | 9,000 | 4,000 | 4,300 | 0 | 4,500 | $\begin{gathered} 17,000- \\ 18,100 \end{gathered}$ | $\begin{gathered} 12,700- \\ 13,900 \end{gathered}$ |
| Dwelling Change | 11,000 | 8,300 | 8,300 | 7,200 | 8,700 | $\begin{gathered} 15,200- \\ 15,900 \end{gathered}$ | $\begin{gathered} 12,600- \\ 13,300 \end{gathered}$ |
| Dwellings p.a. | 550 | 415 | 415 | 360 | 4,400 | $\begin{gathered} 760- \\ 800 \end{gathered}$ | $\begin{gathered} 630- \\ 665 \end{gathered}$ |
| Jobs | $\begin{gathered} 4,000- \\ 4,800 \end{gathered}$ | $\begin{gathered} 1,500- \\ 2,200 \end{gathered}$ | $\begin{aligned} & 750- \\ & 1,500 \end{aligned}$ | $\begin{aligned} & -1,200- \\ & -1,800 \end{aligned}$ | $\begin{gathered} 1,600- \\ 2,400 \end{gathered}$ | 10,150 | 6,900 |

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs

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## Gloucester

Table 5.21 Summary of Scenario Outputs: Gloucester

|  | Demographic Led |  |  |  |  | Economic Led |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\frac{\stackrel{c}{\frac{c}{1}}}{\frac{0}{0}}$ |  | せ |  |
| Pop Change | 19,400 | 19,700 | 24,200 | 15,700 | 18,700 | $\begin{gathered} 21,400- \\ 23,300 \end{gathered}$ | $\begin{gathered} 17,000- \\ 18,900 \end{gathered}$ |
| Natural Change | 15,400 | 15,700 | 15,600 | 15,700 | 15,700 | $\begin{gathered} 13,900- \\ 14,200 \end{gathered}$ | $\begin{gathered} 13,000- \\ 13,300 \end{gathered}$ |
| Net Migration | 4,000 | 4,000 | 8,600 | 0 | 3,000 | $\begin{gathered} 7,500- \\ 9,100 \end{gathered}$ | $\begin{gathered} 4,000- \\ 5,600 \end{gathered}$ |
| Dwelling Change | 12,400 | 11,900 | 13,700 | 9,200 | 11,500 | $\begin{gathered} 12,400- \\ 13,200 \end{gathered}$ | $\begin{gathered} 10,200- \\ 11,400 \end{gathered}$ |
| Dwellings p.a. | 620 | 595 | 685 | 460 | 575 | $\begin{gathered} 620- \\ 660 \end{gathered}$ | $\begin{gathered} 510- \\ 570 \end{gathered}$ |
| Jobs | $\begin{gathered} 6,300- \\ 7,500 \end{gathered}$ | $\begin{gathered} 5,600- \\ 6,800 \end{gathered}$ | $\begin{gathered} 7,700- \\ 9,000 \end{gathered}$ | $\begin{gathered} -50- \\ -1,200 \end{gathered}$ | $\begin{gathered} 4,000- \\ 5,200 \end{gathered}$ | 7,900 | 5,200 |

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs

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## Tewkesbury

Table 5.22 Summary of Scenario Outputs: Tewkesbury

|  | Demographic Led |  |  |  |  | Economic Led |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Ш |  |
| Pop Change | 19,500 | 13,600 | 10,700 | 1,300 | 11,800 | $\begin{gathered} 25,200- \\ 26,100 \end{gathered}$ | $\begin{gathered} 15,000- \\ 15,900 \end{gathered}$ |
| Natural Change | 15,400 | 1,300 | -200 | 1,300 | 1,300 | $\begin{gathered} 1,700- \\ 1,900 \end{gathered}$ | $\begin{gathered} 500- \\ 600 \end{gathered}$ |
| Net Migration | 4,000 | 12,300 | 10,900 | 0 | 10,500 | $\begin{gathered} 23,400- \\ 24,200 \end{gathered}$ | $\begin{gathered} 14,500- \\ 15,300 \end{gathered}$ |
| Dwelling Change | 12,400 | 8,200 | 7,600 | 1,600 | 7,300 | $\begin{gathered} 13,700- \\ 14,100 \end{gathered}$ | $\begin{gathered} 9,300- \\ 9,700 \end{gathered}$ |
| Dwellings p.a. | 620 | 410 | 380 | 80 | 365 | $\begin{gathered} 685- \\ 705 \end{gathered}$ | $\begin{gathered} 450- \\ 485 \end{gathered}$ |
| Jobs | $\begin{gathered} 6,300- \\ 7,500 \end{gathered}$ | $\begin{gathered} 2,000- \\ 2,500 \end{gathered}$ | $\begin{gathered} 1,100 \\ 1,500 \end{gathered}$ | $\begin{aligned} & -3,100 \\ & -3,500 \end{aligned}$ | $\begin{aligned} & 600- \\ & 1,100 \end{aligned}$ | 9,000 | 3,500 |

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs

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## 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 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| All Births | 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 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| All deaths | 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 |
| SMR: male \& female | 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 |
| All | 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 |
|  | 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 |
| All | 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 |
| All | 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 |
| All | 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 |



| Components of Population Change |  |  |  |  |  | Cheltenham |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 712 | 719 | 720 | 717 | 714 | 718 | 728 | 736 | 752 | 767 | 783 | 798 | 810 | 826 | 837 | 845 | 855 | 866 | 876 | 885 |
| Female | 678 | 685 | 686 | 683 | 680 | 684 | 693 | 701 | 716 | 730 | 745 | 760 | 772 | 787 | 797 | 804 | 815 | 825 | 834 | 843 |
| All Biths | 1,390 | 1.405 | 1,406 | 1,400 | 1,393 | 1,401 | 1,421 | 1,438 | 1,468 | 1,497 | 1,528 | 1,559 | 1,582 | 1,613 | 1.634 | 1,649 | 1,670 | 1,690 | 1,709 | 1,728 |
| TFR | 1.98 | 2.00 | 1.99 | 1.97 | 1.95 | 1.93 | 1.91 | 1.89 | 1.88 | 1.87 | 1.86 | 1.85 | 1.84 | 1.84 | 1.83 | 1.82 | 1.82 | 1.82 | 1.82 | 1.82 |
| Births input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 471 | 460 | 466 | 470 | 474 | 475 | 474 | 478 | 482 | 486 | 492 | 495 | 501 | 507 | 515 | 522 | 530 | 540 | 549 | 558 |
| Female | 550 | 546 | 542 | 534 | 534 | 530 | 525 | 521 | 520 | 519 | 519 | 522 | 523 | 526 | 529 | 534 | 539 | 546 | 552 | 561 |
| All deaths | 1,021 | 1,006 | 1,008 | 1,004 | 1,008 | 1,004 | 1,000 | 999 | 1,002 | 1,005 | 1,011 | 1,017 | 1,024 | 1,033 | 1.044 | 1,056 | 1,069 | 1,085 | 1,101 | 1,119 |
| SMR: males | 88.1 | 83.9 | 82.6 | 81.1 | 79.9 | 77.9 | 75.9 | 74.5 | 73.2 | 71.6 | 70.5 | 69.0 | 67.8 | 66.6 | 65.7 | 64.7 | 63.8 | 63.1 | ${ }^{62.3}$ | 61.7 |
| SMR: females | 89.4 | 87.7 | 85.8 | 83.0 | 82.0 | 80.2 | 78.3 | 76.5 | 75.0 | ${ }^{73.3}$ | 71.7 | 70.4 | 69.0 | 67.8 | 66.5 | 65.3 | 64.2 | 63.3 | ${ }^{62.3}$ | 61.5 |
| SMR: male \& female | 88.8 | 85.9 | 84.3 | 82.1 | 81.0 | 79.1 | 77.1 | 75.5 | 74.1 | 72.5 | 71.1 | 69.7 | 68.4 | 67.2 | 66.1 | 65.0 | 64.0 | 63.2 | ${ }^{62.3}$ | 61.6 |
| Expectation of life | 81.9 | 82.2 | 82.3 | 82.5 | 82.6 | 82.8 | 83.0 | 83.1 | 83.2 | 83.3 | 83.4 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 | 84.2 | 84.2 | 84.3 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,401 | 3,424 | 3,410 | 3,378 | 3,438 | 3,457 | 3,427 | 3,455 | 3,459 | 3,462 | 3,463 | 3,437 | 3.445 | 3,446 | 3,436 | 3,433 | 3,428 | 3,430 | 3,423 | 3,407 |
| Female | 3,750 | 3,780 | 3,777 | 3,762 | 3,836 | 3,900 | 3,891 | 3,917 | 3,913 | 3,937 | 3,950 | 3,931 | 3,960 | 3,966 | 3,956 | 3,953 | 3,956 | 3,975 | 3,987 | 3,978 |
| All | 7,151 | 7,205 | 7,187 | 7,141 | 7,274 | 7,357 | 7,318 | 7,372 | 7,372 | 7,400 | 7,413 | 7,369 | 7,405 | 7,412 | 7,392 | 7,386 | 7,384 | 7,404 | 7,410 | 7,385 |
| SMigR: males | 54.7 | 54.9 | 54.3 | 53.6 | 54.5 | 54.4 | 53.4 | 53.5 | 53.0 | 52.6 | 52.1 | 51.1 | 50.8 | 50.4 | 49.6 | 49.1 | 48.5 | 48.1 | 47.4 | 46.6 |
| SMigR: females | 59.4 | 59.2 | 58.5 | 57.7 | 58.6 | 59.1 | 58.4 | 58.2 | 57.5 | 57.4 | 57.0 | 56.1 | 56.1 | 55.6 | 54.7 | 53.8 | 53.0 | 52.5 | 51.8 | 50.9 |
| Migrants input |  | * | * | * | * | * | * | * | * | * |  | * | * |  |  |  | * |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,366 | 3,326 | 3,326 | 3,338 | 3,266 | 3,217 | 3,225 | 3,195 | 3,199 | 3,182 | 3,168 | 3,193 | 3,169 | 3,169 | 3,180 | 3,182 | 3,183 | 3,161 | 3,149 | 3,155 |
| Female | 3,711 | 3,698 | 3,715 | 3,749 | 3,688 | 3,654 | 3,685 | 3,661 | 3,657 | 3,646 | 3,647 | 3,666 | 3,654 | 3,647 | 3,656 | 3,660 | 3,661 | 3,663 | 3,669 | 3,688 |
| All | 7,077 | 7,023 | 7,041 | 7,087 | 6,954 | 6,871 | 6,910 | 6,856 | 6,856 | 6,828 | 6.815 | 6,859 | 6,823 | 6,816 | 6,836 | 6,842 | 6,844 | 6,824 | 6,818 | 6,843 |
| SMigR: males | 54.1 | 53.3 | 53.0 | 53.0 | 51.8 | 50.7 | 50.3 | 49.5 | 49.0 | 48.4 | 47.7 | 47.5 | 46.7 | 46.3 | 46.0 | 45.5 | 45.1 | 44.3 | 43.6 | 43.2 |
| SMigR: females | 58.8 | 58.0 | 57.5 | 57.5 | 56.3 | 55.4 | 55.3 | 54.4 | 53.7 | 53.2 | 52.6 | 52.3 | 51.8 | 51.1 | 50.5 | 49.8 | 49.1 | 48.4 | 47.7 | 47.2 |
| Migrants input | * | * | * | * | * | * | * | * | - | * | * | * | * |  | * |  | * | * |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 757 | 782 | 770 | 744 | 813 | 854 | 832 | 857 | 857 | 871 | 878 | 855 | 871 | 872 | 860 | 856 | 854 | 864 | 865 | 851 |
| Female | 673 | 702 | 696 | 676 | 741 | 782 | 765 | 793 | 794 | 807 | 814 | 793 | 813 | 819 | 811 | 809 | 809 | 820 | 824 | 813 |
| All | 1,430 | 1,484 | 1,466 | 1,420 | 1,553 | 1,636 | 1,597 | 1,651 | 1,651 | 1,679 | 1,692 | 1,648 | 1,684 | 1,691 | 1.671 | 1,665 | 1,663 | 1,683 | 1,689 | 1,664 |
| SMigR: males | 171.6 | 176.8 | 173.3 | 166.9 | 182.6 | 190.7 | 183.8 | 188.4 | 186.8 | 188.4 | 188.3 | 181.8 | 184.4 | 183.5 | 17.4 | 177.3 | 175.7 | 176.3 | 174.7 | 169.9 |
| SMigR: females | 161.7 | 166.5 | 162.7 | 156.2 | 170.0 | 177.3 | 170.8 | 174.9 | 172.6 | 173.6 | 173.3 | 166.7 | 169.6 | 169.5 | 166.3 | 164.3 | 162.5 | 162.9 | 161.4 | 156.9 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 748 | 715 | 721 | 743 | 667 | 620 | 641 | 610 | 609 | 593 | 585 | 609 | 589 | 584 | 594 | 596 | 597 | 585 | 581 | 594 |
| Female | 594 | 573 | 585 | 609 | 551 | 515 | 534 | 511 | 512 | 500 | 495 | 515 | 499 | 497 | 507 | 511 | 512 | 504 | 502 | 514 |
| All | 1,342 | 1,288 | 1,306 | 1,352 | 1,219 | 1,136 | 1,175 | 1,121 | 1,121 | 1,093 | 1,080 | 1,124 | 1,088 | 1,081 | 1,101 | 1,107 | 1,109 | 1,089 | 1,083 | 1,108 |
| SMigR: males | 169.6 | 161.7 | 162.2 | 166.7 | 149.9 | 138.6 | 141.6 | 134.0 | 132.6 | 128.2 | 125.5 | 129.5 | 124.6 | 122.9 | 124.0 | 123.5 | 122.7 | 119.3 | 117.3 | 118.6 |
| SMigR: females | 142.7 | 136.1 | 136.7 | 140.7 | 126.5 | 116.8 | 119.1 | 112.8 | 111.4 | 107.6 | 105.2 | 108.3 | 104.2 | 102.9 | 104.0 | 103.7 | 103.0 | 100.2 | ${ }_{98} 9$ | 99.1 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | . | * | . | * | * |  |  |


| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 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 |  | 0 |
| Labour Force |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (1) |
| Number of Labour Force | ${ }^{61,709}$ | ${ }^{61,822}$ | 62,073 | 62,211 | ${ }^{62,291}$ | ${ }^{62,733}$ | 63,265 +532 | 63,784 +519 | ${ }^{64,347}$ | 64,875 +528 | ${ }^{65,481}$ | ${ }^{66,119}$ | ${ }^{66,733}$ | 67,394 | 68,089 |  | 69,400 | $70,117$ | 70,857 | 71,608 | 72,358 +751 | 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 |  | $\square$ |
| Number of supply units | 54,432 | 54,532 | 54,812 | 54,992 | 55,122 | 5,572 | 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 | 0 |
| 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 |  | $\omega$ |
| 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 | 52,998 | 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 |  |  |




| Components of Population Change |  |  |  |  |  | Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1st ... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 45 | 480 | 484 | 485 | 478 | 474 |  | 4 | 484 | 489 | 495 |  | 508 | 5 |  | 525 | 504 | 537 | 543 | 549 |
| Female | 452 | 457 | 461 | 457 | 455 | 452 | 453 | 456 | 461 | 466 | 472 | 479 | 484 | 488 | 495 | 500 | 504 | 511 | 517 | 522 |
| All Biths | 927 | 937 | 945 | 937 | 934 | 926 | 928 | 935 | 945 | 955 | 967 | 981 | 992 | 1,001 | 1,016 | 1,025 | 1,034 | 1,048 | 1,061 | 1,071 |
| 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 | 383 | 387 | 394 | 396 | 397 | 403 | 408 | 415 | 422 | 429 | 437 | 446 | 456 | 466 | 474 | 485 | 497 | 509 | 520 | 529 |
| Female | 402 | 402 | 408 | 416 | 414 | 416 | 419 | 423 | 427 | 430 | 436 | 440 | 447 | 453 | 460 | 468 | 477 | 486 | 495 | 506 |
| All deaths | 785 | 789 | 801 | 812 | 811 | 818 | 828 | 838 | 849 | 859 | 872 | 886 | 903 | 918 | 934 | 954 | 974 | 994 | 1,015 | 1,035 |
| SMR: males | 91.0 | 89.0 | 87.6 | 85.3 | 82.7 | 81.2 | 79.6 | 78.2 | 76.7 | 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 | 76.4 | 75.0 | 73.3 | 71.9 | 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 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,381 | 2,409 | 2,387 | 2,375 | 2,408 | 2,436 | 2,464 | 2,470 | 2,491 | 2,517 | 2,535 | 2,522 | 2,516 | 2,532 | 2,534 | 2,547 | 2,553 | 2,553 | 2,548 | 2,563 |
| Female | 2,656 | 2,671 | 2,633 | 2,603 | 2,623 | 2,638 | 2,652 | 2,639 | 2,648 | 2,654 | 2,657 | 2,635 | 2,625 | 2,625 | 2,623 | 2,627 | 2,628 | 2,625 | 2,611 | 2,628 |
| All | 5,037 | 5,880 | 5,020 | 4,978 | 5,031 | 5,074 | 5,116 | 5,109 | 5,139 | 5,170 | 5,192 | 5,157 | 5,141 | 5,157 | 5,157 | 5,175 | 5,181 | 5,178 | 5,159 | 5,191 |
| SMigR: males | 60.0 | 59.9 | 58.4 | 57.4 | 57.7 | 57.7 | 57.5 | 56.6 | 56.2 | 55.8 | 55.3 | 53.9 | 52.9 | 52.4 | 51.6 | 51.1 | 50.4 | 49.5 | 48.7 | 48.3 |
| SMigR: females | 66.4 | 66.2 | 64.6 | 63.5 | 63.9 | 63.9 | 63.6 | 62.6 | 62.2 | 61.6 | 60.9 | 59.4 | 58.5 | 57.8 | 56.9 | 56.1 | 55.1 | 54.2 | 53.0 | 52.5 |
| Migrants input | - |  | * | * | * |  | . | * | * | * | * | * | * | * |  | * | * |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,058 | 2,045 | 2,079 | 2,104 | 2,085 | 2,070 | 2,056 | 2,065 | 2,057 | 2,047 | 2,043 | 2,065 | 2,075 | 2,073 | 2,075 | 2,071 | 2,069 | 2,069 | 2,082 | 2,066 |
| Female | 2,342 | 2,312 | 2,339 | 2,355 | 2,321 | 2,293 | 2,265 | 2,263 | 2,241 | 2,219 | 2,202 | 2,215 | 2,221 | 2,208 | 2,205 | 2,191 | 2,186 | 2,190 | 2,196 | 2,180 |
| All | 4,400 | 4,357 | 4,417 | 4,459 | 4,406 | 4,363 | 4,321 | 4,328 | 4,298 | 4,267 | 4,245 | 4,280 | 4,296 | 4,280 | 4,280 | 4,262 | 4,256 | 4,259 | 4,278 | 4,246 |
| SMigR: males | 51.9 | 50.9 | 50.8 | 50.9 | 50.0 | 49.0 | 48.0 | 47.4 | 46.4 | 45.4 | 44.5 | 44.1 | 43.6 | 42.9 | 42.3 | 41.5 | 40.8 | 40.2 | 39.8 | 38.9 |
| SMigR: females | 58.6 | 57.3 | 57.4 | 57.4 | 56.5 | 55.5 | 54.3 | 53.7 | 52.7 | 51.5 | 50.4 | 50.0 | 49.5 | 48.6 | 47.8 | 46.7 | 45.9 | 45.2 | 44.6 | 43.6 |
| Migrants input | - | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 211 | 235 | 204 | 182 | 211 | 235 | 259 | 256 | 274 | 293 | 306 | 287 | 279 | 288 | 289 | 300 | 304 | 302 | 292 | 309 |
| Female | 185 | 204 | 175 | 155 | 179 | 198 | 216 | 212 | 224 | 237 | 245 | 229 | 222 | 228 | 227 | 234 | 237 | 235 | 226 | 240 |
| All | 396 | 439 | 379 | 337 | 390 | 433 | 475 | 468 | 498 | 529 | 551 | 516 | 500 | 516 | 516 | 534 | 540 | 537 | 518 | 550 |
| SMigR: males | 79.0 | 86.6 | 73.6 | 64.8 | 74.4 | 81.8 | 88.7 | 86.1 | 90.7 | 95.2 | 97.6 | 89.9 | 86.0 | 87.6 | 86.8 | 88.8 | 88.7 | 86.9 | 82.7 | 86.6 |
| SMigR: females | 70.4 | 77.1 | 65.3 | 57.5 | 66.1 | 72.7 | 78.9 | 76.4 | 80.1 | 83.7 | 85.6 | 79.0 | 75.6 | 77.0 | 76.0 | 77.4 | ${ }^{77 .} 3$ | 75.6 | 71.8 | 75.2 |
| Migrants input |  | * | * | * |  | * | * | * | * | * | * | - | * | * | * | * | - |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 88 | 65 | 98 | 122 | 93 | 69 | 46 | 50 | 33 | 15 | 3 | 23 | 32 | 24 | ${ }^{23}$ | 13 | 9 | 11 | 22 | 4 |
| Female | ${ }^{73}$ | ${ }^{53}$ | 80 | 98 | 74 | 55 | 36 | 39 | 26 | 12 | 3 | 18 | 25 | 18 | 18 | 10 | 7 | 9 | 17 | 3 |
| All | 161 | 118 | 178 | 220 | 167 | 124 | 82 | 89 | 59 | 28 | , | 41 | 57 | 41 | 41 | ${ }^{23}$ | 17 | 20 | 39 | 7 |
| SMigR: males | 33.1 | 23.8 | 35.6 | 43.4 | 32.8 | 24.1 | 15.6 | 16.7 | 10.9 | 5.0 | 1.1 | ${ }^{7.3}$ | 9.9 | 7.2 | 7.0 | 3.9 | 2.8 | 3.3 | ${ }^{6.3}$ | 1.1 |
| SMigR: females | 27.7 | 20.0 | 29.8 | 36.4 | 27.5 | 20.2 | 13.2 | 14.2 | 9.2 | 4.3 | 0.9 | 6.1 | 8.4 | 6.1 | 5.9 | 3.3 | 2.3 | 2.8 | 5.3 | 1.0 |
| Migrants input |  |  | * | * |  |  | * | * | * | * | * | * | * | . | * | * | * | * | . | * |



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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
CompatiblelModel RunsICGTICheltenham, Gloucester, Tewkesbury
JCS_inplscenario_EMPLOYMENT LED 2.xls
Tick to save as new flat file

| Produce flat file |  | << Append to (blank if not to be appended) |
| :---: | :---: | :---: |
| Clicking the button will copy <br> all data from this |  |  |
| components file onto a single sheet in another workbook (for pivots, etc) | G:IHEaDROOM11. POPGROUP v3.1 DF <br> Compatible\Model Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_EMPLOYMENT LED 2.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.

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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.

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

| 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 |
| All Births | 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 |
| All deaths | 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 |
| SMR: male \& female | 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 |
| All | 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 |
| All | 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 |
| All | 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 |
| All | 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 | 0 |
| 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 | ๑ |
| 60/65-74 | 37,517 | 38,657 | 39,610 | 40,486 | 41,201 | 41,903 | 42,53 | 42,924 | 43,448 | 44,010 | 44,566 | 44,596 | 44,866 | 45,440 | 46,650 | 47,748 | 48,907 | 49,958 | 50,936 | 51,941 | 52,915 | Q |
| 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 | (1) |
| 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 | $\mathrm{S}^{231}$ |
| 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 |  |
| 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 |  |




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| Components of Population Change |  |  |  |  |  | Gloucester |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1st |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 890 | 898 | 884 | 865 | 851 | 849 | 851 | 849 | 849 | 853 | 860 | 866 | 869 | 872 | 876 | 880 | 884 | 892 | 904 | 918 |
| Female | 847 | 855 | 842 | 824 | 810 | 809 | 810 | 809 | 809 | 812 | 819 | 824 | 827 | 831 | 835 | 838 | 842 | 849 | 861 | 874 |
| All Biths | 1,737 | 1,754 | 1,726 | 1,689 | 1.661 | 1,658 | 1,661 | 1.658 | 1,658 | 1,665 | 1,678 | 1.690 | 1,696 | 1,703 | 1.711 | 1,719 | 1,726 | 1.741 | 1,766 | 1,792 |
| 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 | 488 | 481 | 488 | 495 | 484 | 487 | 490 | 494 | 498 | 500 | 505 | 509 | 516 | 521 | 528 | 534 | 543 | 549 | 556 | 566 |
| Female | 510 | 501 | 496 | 495 | 493 | 488 | 486 | 487 | 486 | 485 | 487 | 491 | 493 | 495 | 498 | 505 | 511 | 517 | 525 | 533 |
| All deaths | 998 | 981 | 984 | 990 | 977 | 974 | 976 | 980 | 983 | 985 | 992 | 1,000 | 1,009 | 1,016 | 1,027 | 1,039 | 1,053 | 1,066 | 1,080 | 1,099 |
| SMR: males | 101.1 | 97.3 | 96.2 | 95.5 | 91.4 | 89.4 | 87.7 | 85.9 | 84.4 | 82.4 | 80.8 | 79.2 | 78.0 | 76.5 | 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 | 84.7 | 83.1 | 81.6 | 80.0 | 78.3 | 76.9 | 75.8 | 74.6 | 73.4 | ${ }^{72.4}$ | 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 | 82.5 | 82.7 | 82.8 | 82.9 | 83.0 | 83.1 | 83.2 | 83.3 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2.566 | 2.594 | 2,564 | 2.592 | 2,662 | 2,693 | 2,675 | 2,693 | 2,700 | 2,730 | 2,735 | 2.711 | 2,719 | 2,726 | 2,713 | 2,704 | 2,699 | 2,733 | 2,732 | 2,722 |
| Female | 2,677 | 2,712 | 2,686 | 2,720 | 2,789 | 2,817 | 2,806 | 2,830 | 2,835 | 2,863 | 2,866 | 2,837 | 2,849 | 2,858 | 2,843 | 2,834 | 2,828 | 2,865 | 2,865 | 2,865 |
| All | 5,243 | 5,306 | 5,250 | 5,312 | 5,451 | 5,510 | 5,481 | 5,523 | 5,536 | 5,593 | 5,601 | 5,548 | 5,568 | 5,584 | 5,556 | 5,538 | 5,526 | 5,598 | 5,596 | 5,587 |
| SMigR: males | 40.2 | 40.8 | 40.4 | 41.0 | 42.3 | 42.6 | 42.1 | 42.2 | 42.1 | 42.3 | 42.0 | 41.2 | 41.0 | 40.6 | 40.0 | 39.4 | 38.9 | 39.0 | ${ }^{38.4}$ | 37.8 |
| SMigR: females | 41.9 | 42.7 | 42.4 | 43.2 | 44.3 | 44.6 | 44.1 | 44.3 | 44.1 | 44.3 | 43.9 | 42.9 | 42.8 | 42.5 | 41.7 | 41.1 | 40.5 | 40.5 | 39.9 | 39.3 |
| Migrants input |  | * | * | * |  |  | * | * |  |  | * | * | * |  |  | * | * |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,712 | 2,675 | 2,701 | 2,671 | 2,603 | 2,576 | 2,587 | 2,563 | 2,554 | 2,526 | 2,521 | 2,547 | 2,536 | 2,528 | 2,541 | 2,551 | 2,557 | 2,521 | 2,523 | 2,523 |
| Female | 2,791 | 2,764 | 2,794 | 2,762 | 2,691 | 2,660 | 2,677 | 2,659 | 2,655 | 2,626 | 2,622 | 2,650 | 2,640 | 2,633 | 2,648 | 2,656 | 2,662 | 2,627 | 2,626 | 2,635 |
| All | 5.502 | 5.439 | 5,495 | 5,433 | 5,294 | 5,235 | 5,264 | 5,222 | 5,209 | 5,152 | 5,144 | 5,197 | 5,177 | 5,161 | 5,189 | 5,207 | 5,219 | 5,147 | 5,149 | 5,158 |
| SMigR: males | 42.4 | 42.1 | 42.6 | 42.3 | 41.3 | 40.8 | 40.7 | 40.1 | 39.8 | 39.1 | 38.7 | 38.7 | 38.2 | 37.7 | 37.4 | 37.1 | 36.8 | 35.9 | 35.5 | 35.0 |
| SMigR: females | 43.6 | 43.5 | 44.1 | 43.8 | 42.8 | 42.1 | 42.1 | 41.6 | 41.3 | 40.6 | 40.1 | 40.1 | 39.6 | 39.2 | 38.9 | 38.5 | 38.1 | 37.1 | 36.5 | 36.1 |
| Migrants input |  |  | * | * |  |  | * | * | * | * | * | * | * | * | * | * | * | * |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 326 | 360 | 329 | 362 | 437 | 468 | 453 | 475 | 482 | 513 | 517 | 489 | 500 | 508 | 493 | 483 | 477 | 515 | 514 | 509 |
| Female | 279 | 308 | 283 | 312 | 376 | 404 | 390 | 409 | 415 | 442 | 446 | 421 | 431 | 438 | 425 | 417 | 412 | 445 | 444 | 440 |
| All | 605 | 668 | 612 | 674 | 813 | 872 | 843 | 885 | 898 | 955 | 963 | 910 | 930 | 946 | 918 | 900 | 888 | 960 | 958 | 949 |
| SMigR: males | ${ }^{73.2}$ | 81.4 | 74.8 | 83.0 | 100.5 | 107.4 | 103.3 | 108.0 | 109.0 | 115.4 | 115.4 | 108.1 | 109.8 | 110.8 | 106.5 | 103.3 | 100.9 | 107.9 | 106.2 | 103.6 |
| SMigR: females | 63.8 | 70.9 | 65.2 | 72.4 | 87.8 | 93.9 | 90.3 | 94.4 | 95.2 | 100.6 | 100.7 | 94.1 | 95.7 | 96.5 | 92.9 | 90.2 | 88.2 | 94.4 | 92.9 | 90.6 |
| Migrants input | . | * | * | * |  |  | * | * | * | * | * | * | * | * |  | * | - | * |  | * |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 542 | 506 | 537 | 502 | 425 | 393 | 409 | 386 | 378 | 347 | 342 | 371 | 359 | 351 | 366 | 375 | 382 | 342 | 343 | 348 |
| Female | 439 | 411 | 436 | 409 | 346 | 320 | 333 | 315 | 309 | 283 | 280 | 304 | 295 | 288 | 301 | 310 | 315 | 283 | 284 | 288 |
| All | 980 | 917 | 973 | 911 | 772 | 713 | 742 | 700 | 687 | 630 | 622 | 675 | 655 | 639 | 667 | 685 | 697 | 625 | 627 | 636 |
| SMigR: males | 121.7 | 114.6 | 121.9 | 115.0 | 97.9 | 90.1 | 93.2 | 87.6 | 85.5 | 78.0 | 76.2 | 82.0 | 79.0 | 76.5 | 78.9 | 80.3 | 80.8 | 71.7 | 70.8 | 70.8 |
| SMigR: females | 100.3 | 94.4 | 100.6 | 94.9 | 80.8 | 74.5 | 77.1 | 72.5 | 70.8 | 64.5 | 63.2 | 68.0 | 65.6 | 63.6 | 65.8 | 67.0 | 67.5 | 60.1 | 59.4 | 59.4 |
| Migrants input | * | . | * |  |  | . | * | * | * | * | * | * | * | * | . | . | - | * | * |  |



| 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 | 475 | 480 | 484 | 480 | 478 | 474 | 475 | 477 | 481 | 486 | 491 | 497 | 502 | 505 | 511 | 515 | 520 | 527 | 534 | 540 |
| Female | 452 | 457 | 461 | 457 | 455 | 452 | 452 | 454 | 458 | 463 | 468 | 474 | 478 | 481 | 486 | 491 | 495 | 502 | 508 | 514 |
| All Births | 927 | 937 | 945 | 937 | 934 | 926 | 927 | 932 | 940 | 949 | 959 | 971 | 980 | 986 | 997 | 1,006 | 1,015 | 1,029 | 1,042 | 1,053 |
| 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 | 383 | 387 | 394 | 396 | 397 | 403 | 408 | 415 | 422 | 429 | 436 | 445 | 455 | 464 | 473 | 484 | 496 | 507 | 518 | 527 |
| Female | 402 | 402 | 408 | 416 | 414 | 416 | 419 | 423 | 426 | 430 | 435 | 440 | 446 | 452 | 459 | 467 | 476 | 485 | 494 | 505 |
| All deaths | 785 | 789 | 801 | 812 | 811 | 818 | 827 | 838 | 848 | 858 | 871 | 885 | 901 | 916 | 932 | 951 | 972 | 992 | 1,012 | 1,032 |
| SMR: males | 91.0 | 89.0 | 87.6 | 85.3 | 82.7 | 81.2 | 79.6 | 78.2 | 76.7 | 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 | 76.4 | 75.0 | 73.3 | 71.9 | 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 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,381 | 2,409 | 2,387 | 2,375 | 2,408 | 2,428 | 2,456 | 2,462 | 2,483 | 2,509 | 2,527 | 2,514 | 2,499 | 2,514 | 2,534 | 2,547 | 2,553 | 2,552 | 2,548 | 2,562 |
| Female | 2,656 | 2,671 | 2,633 | 2,603 | 2,623 | 2,629 | 2,643 | 2,630 | 2,639 | 2,645 | 2,647 | 2,625 | 2,606 | 2,606 | 2,622 | 2,626 | 2,627 | 2,624 | 2,609 | 2,626 |
| All | 5,037 | 5,080 | 5,020 | 4,978 | 5,031 | 5,057 | 5,099 | 5,092 | 5,122 | 5,153 | 5,174 | 5,139 | 5,105 | 5,120 | 5,156 | 5,173 | 5,180 | 5,176 | 5,157 | 5,188 |
| SMigR: males | 60.0 | 59.9 | 58.4 | 57.4 | 57.7 | 57.5 | 57.4 | 56.6 | 56.2 | 55.9 | 55.4 | 54.1 | 52.9 | 52.6 | 52.3 | 51.7 | 50.9 | 50.1 | 49.2 | 48.8 |
| SMigR: females | 66.4 | 66.2 | 64.6 | 63.5 | 63.9 | 63.6 | 63.5 | 62.6 | 62.2 | 61.7 | 61.0 | 59.6 | 58.5 | 57.9 | 57.6 | 56.7 | 55.7 | 54.7 | 53.5 | 53.1 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,058 | 2,045 | 2,079 | 2,104 | 2,085 | 2,078 | 2,064 | 2,074 | 2,065 | 2,056 | 2,052 | 2,074 | 2,093 | 2,091 | 2,076 | 2,072 | 2,070 | 2,070 | 2,083 | 2,067 |
| Female | 2,342 | 2,312 | 2,339 | 2,355 | 2,321 | 2,302 | 2,273 | 2,271 | 2,250 | 2,228 | 2,211 | 2,224 | 2,239 | 2,226 | 2,205 | 2,192 | 2,187 | 2,191 | 2,197 | 2,182 |
| All | 4,400 | 4,357 | 4,417 | 4,459 | 4,406 | 4,380 | 4,338 | 4,345 | 4,315 | 4,284 | 4,263 | 4,298 | 4,332 | 4,317 | 4,281 | 4,264 | 4,257 | 4,261 | 4,280 | 4,249 |
| SMigR: males | 51.9 | 50.9 | 50.8 | 50.9 | 50.0 | 49.2 | 48.2 | 47.7 | 46.8 | 45.8 | 45.0 | 44.6 | 44.3 | 43.7 | 42.8 | 42.1 | 41.3 | 40.6 | 40.2 | 39.4 |
| SMigR: females | 58.6 | 57.3 | 57.4 | 57.4 | 56.5 | 55.7 | 54.6 | 54.0 | 53.0 | 52.0 | 50.9 | 50.5 | 50.3 | 49.5 | 48.4 | 47.3 | 46.4 | 45.7 | 45.1 | 44.1 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 211 | 235 | 204 | 182 | 211 | 226 | 250 | 247 | 265 | 283 | 296 | 277 | 259 | 268 | 289 | 299 | 303 | 301 | 290 | 308 |
| Female | 185 | 204 | 175 | 155 | 179 | 190 | 209 | 204 | 216 | 229 | 237 | 221 | 206 | 211 | 226 | 233 | 236 | 234 | 225 | 239 |
| All | 396 | 439 | 379 | 337 | 390 | 416 | 458 | 451 | 481 | 512 | 533 | 498 | 464 | 479 | 515 | 532 | 539 | 535 | 516 | 547 |
| SMigR: males | 79.0 | 86.6 | 73.6 | 64.8 | 74.4 | 78.6 | 85.7 | 83.2 | 87.9 | 92.6 | 95.1 | 87.5 | 80.5 | 82.4 | 87.9 | 89.8 | 89.6 | 87.7 | 83.3 | 87.2 |
| SMigR: females | 70.4 | 77.1 | 65.3 | 57.5 | 66.1 | 69.9 | 76.2 | 73.8 | 77.7 | 81.4 | 83.5 | 76.9 | 70.9 | 72.4 | 76.9 | 78.3 | 78.1 | 76.3 | 72.4 | 75.8 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 88 | 65 | 98 | 122 | 93 | 79 | 55 | 59 | 43 | 25 | 13 | 33 | 52 | 44 | 24 | 14 | 10 | 13 | 24 |  |
| Female | 73 | 53 | 80 | 98 | 74 | 62 | 44 | 47 | 33 | 20 | 10 | 26 | 40 | 34 | 18 | 11 | 8 | 9 | 18 | 4 |
| All | 161 | 118 | 178 | 220 | 167 | 141 | 99 | 106 | 76 | 45 | 24 | 59 | 93 | 78 | 42 | 25 | 18 | 22 | 41 | 10 |
| SMigR: males | 33.1 | 23.8 | 35.6 | 43.4 | 32.8 | 27.3 | 18.8 | 20.0 | 14.1 | 8.2 | 4.3 | 10.5 | 16.3 | 13.6 | 7.3 | 4.2 | 3.1 | 3.7 | 6.8 | 1.6 |
| SMigR: females | 27.7 | 20.0 | 29.8 | 36.4 | 27.5 | 23.0 | 15.9 | 16.9 | 12.0 | 7.0 | 3.6 | 8.9 | 13.8 | 11.5 | 6.2 | 3.5 | 2.6 | 3.1 | 5.7 | 1.3 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |



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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model RunsICGT\Cheltenham, Gloucester, Tewkesbury
JCS_inplscenario_EMPLOYMENT LED 2 LOW UNEMP.xls Tick to save as new flat file

| It was run on 23/05/2012 at 13:03:09 | Produce flat file <br> Clicking the button will copy <br> all data from this <br> components file onto a <br> single sheet in another <br> workbook (for pivots, etc) |  | << Append to (blank if not to be appended) <br> << Save flat file with this name (may be blank if to be appended to an existing file) |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | G:IHEaDROOM11. POPGROUP v3.1 DF Compatible\Model Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_EMPLOYMENT LED 2 LOW UNEMP.xls |  |

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.

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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 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.

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

| Population Estimates and Forecasts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 2,009 | 2,128 | 2,102 | 2,095 | 2,096 | 2,091 | 2,093 | 2,092 | 2,095 | 2,102 | 2,103 | 2,104 | 2,099 | 2,102 | 2,102 | 2,100 | 2,100 | 2,102 | 2,106 | 2,109 |
| Female | 1,913 | 2,027 | 2,002 | 1,996 | 1,996 | 1,991 | 1,993 | 1,992 | 1,995 | 2,002 | 2,003 | 2,004 | 1,999 | 2,002 | 2,001 | 2,000 | 2,000 | 2,002 | 2,005 | 2,009 |
| All Births | 3,923 | 4,156 | 4,105 | 4,091 | 4,091 | 4,083 | 4,085 | 4,084 | 4,091 | 4,103 | 4,106 | 4,107 | 4,099 | 4,105 | 4,103 | 4,100 | 4,100 | 4,104 | 4,111 | 4,118 |
| TFR | 2.10 | 2.12 | 2.10 | 2.07 | 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 | 1,333 | 1,333 | 1,350 | 1,366 | 1,363 | 1,371 | 1,379 | 1,392 | 1,406 | 1,417 | 1,433 | 1,447 | 1,467 | 1,486 | 1,508 | 1,531 | 1,557 | 1,582 | 1,605 | 1,631 |
| Female | 1,450 | 1,454 | 1,448 | 1,450 | 1,447 | 1,440 | 1,437 | 1,435 | 1,435 | 1,436 | 1,441 | 1,449 | 1,457 | 1,466 | 1,478 | 1,496 | 1,515 | 1,534 | 1,555 | 1,580 |
| All deaths | 2,783 | 2,786 | 2,798 | 2,816 | 2,810 | 2,811 | 2,816 | 2,827 | 2,841 | 2,853 | 2,873 | 2,896 | 2,924 | 2,952 | 2,986 | 3,027 | 3,072 | 3,116 | 3,160 | 3,212 |
| SMR: males | 93.3 | 89.9 | 88.6 | 87.1 | 84.6 | 82.7 | 80.9 | 79.4 | 77.9 | 76.2 | 74.8 | 73.4 | 72.2 | 71.0 | 69.9 | 68.9 | 68.0 | 67.1 | 66.2 | 65.5 |
| SMR: females | 93.6 | 91.0 | 89.2 | 87.4 | 85.6 | 83.6 | 81.8 | 80.2 | 78.5 | 76.8 | 75.2 | 73.8 | 72.4 | 71.0 | 69.7 | 68.5 | 67.4 | 66.3 | 65.3 | 64.5 |
| SMR: male \& female | 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 | 9,979 | 8,115 | 8,588 | 8,563 | 8,486 | 8,522 | 8,488 | 8,486 | 8,540 | 8,507 | 8,535 | 8,483 | 8,577 | 8,590 | 8,622 | 8,581 | 8,487 | 8,509 | 8,473 | 8,421 |
| Female | 10,785 | 8,836 | 9,341 | 9,330 | 9,238 | 9,300 | 9,278 | 9,255 | 9,285 | 9,242 | 9,260 | 9,201 | 9,319 | 9,322 | 9,354 | 9,301 | 9,205 | 9,248 | 9,223 | 9,187 |
| All | 20,764 | 16,951 | 17,929 | 17,893 | 17,725 | 17,822 | 17,766 | 17,741 | 17,826 | 17,749 | 17,795 | 17,684 | 17,896 | 17,912 | 17,975 | 17,882 | 17,693 | 17,757 | 17,696 | 17,608 |
| SMigR: males | 61.4 | 48.2 | 51.0 | 50.4 | 49.7 | 49.6 | 49.1 | 48.9 | 49.1 | 48.8 | 48.8 | 48.3 | 48.7 | 48.5 | 48.4 | 47.8 | 46.9 | 46.8 | 46.3 | 45.7 |
| SMigR: females | 66.2 | 52.0 | 55.0 | 54.4 | 53.5 | 53.6 | 53.3 | 53.0 | 53.0 | 52.7 | 52.7 | 52.2 | 52.7 | 52.5 | 52.3 | 51.4 | 50.3 | 50.1 | 49.5 | 48.9 |
| Migrats input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 6,573 | 8,353 | 7,885 | 7,889 | 7,961 | 7,911 | 7,932 | 7,943 | 7,912 | 7,953 | 7,935 | 8,000 | 7,896 | 7,895 | 7,868 | 7,916 | 8,007 | 7,960 | 7,984 | 8,013 |
| Female | 7,073 | 9,106 | 8,596 | 8,628 | 8,724 | 8,677 | 8,712 | 8,726 | 8,672 | 8,708 | 8,680 | 8,726 | 8,618 | 8,603 | 8,566 | 8,613 | 8,710 | 8,693 | 8,730 | 8,789 |
| All | 13,646 | 17,459 | 16,481 | 16,517 | 16,685 | 16,588 | 16,644 | 16,669 | 16,584 | 16,661 | 16,615 | 16,726 | 16,514 | 16,498 | 16,435 | 16,528 | 16,717 | 16,653 | 16,714 | 16,802 |
| SMigR: males | 40.4 | 49.6 | 46.8 | 46.5 | 46.6 | 46.0 | 45.9 | 45.8 | 45.5 | 45.6 | 45.4 | 45.6 | 44.8 | 44.6 | 44.2 | 44.1 | 44.3 | 43.8 | 43.6 | 43.5 |
| SMigR: females | 43.4 | 53.6 | 50.6 | 50.3 | 50.5 | 50.0 | 50.0 | 50.0 | 49.5 | 49.6 | 49.4 | 49.5 | 48.8 | 48.4 | 47.9 | 47.6 | 47.6 | 47.1 | 46.9 | 46.8 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,404 | 1,399 | 1,398 | 1,396 | 1,395 | 1,393 | 1,391 | 1,390 | 1,390 | 1,390 | 1,389 | 1,389 | 1,387 | 1,385 | 1,383 | 1,382 | 1,381 | 1,381 | 1,379 | 1,377 |
| Female | 1,224 | 1,229 | 1,230 | 1,232 | 1,233 | 1,235 | 1,237 | 1,238 | 1,238 | 1,238 | 1,239 | 1,239 | 1,241 | 1,243 | 1,245 | 1,246 | 1,247 | 1,247 | 1,249 | 1,251 |
| 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 | 124.4 | 119.3 | 119.3 | 118.2 | 117.3 | 116.7 | 116.0 | 115.6 | 115.5 | 115.3 | 115.3 | 115.3 | 115.1 | 114.8 | 114.2 | 113.6 | 112.9 | 112.4 | 111.6 | 110.7 |
| SMigR: females | 112.9 | 108.1 | 108.2 | 107.2 | 106.3 | 105.9 | 105.5 | 105.3 | 105.1 | 104.9 | 105.0 | 105.0 | 105.3 | 105.4 | 105.2 | 104.8 | 104.3 | 103.9 | 103.2 | 102.6 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,273 | 1,266 | 1,263 | 1,260 | 1,257 | 1,255 | 1,254 | 1,252 | 1,251 | 1,250 | 1,249 | 1,249 | 1,248 | 1,247 | 1,246 | 1,244 | 1,243 | 1,241 | 1,240 | 1,239 |
| Female | 1,013 | 1,020 | 1,023 | 1,026 | 1,029 | 1,031 | 1,032 | 1,034 | 1,035 | 1,036 | 1,037 | 1,037 | 1,038 | 1,039 | 1,040 | 1,042 | 1,043 | 1,045 | 1,046 | 1,047 |
| 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 |



| Components of Population Change |  |  |  |  |  | Cheltenham |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1 st |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 693 | ${ }_{7} 7$ | 736 | 740 | 745 | 747 | 753 | 758 | 768 | 777 | 784 | 791 | 795 | 805 | 807 | 807 | 809 | 809 | 808 | 807 |
| Female | 660 | 702 | 700 | 705 | 709 | 712 | 717 | 722 | 732 | 740 | 747 | 753 | 757 | 766 | 769 | 769 | 770 | 770 | 769 | 769 |
| All Biths | 1,352 | 1,440 | 1,436 | 1,445 | 1,454 | 1,459 | 1,470 | 1,480 | 1,500 | 1,517 | 1,531 | 1,544 | 1,553 | 1,571 | 1,576 | 1,576 | 1,579 | 1,579 | 1,577 | 1,576 |
| TFR | 1.98 | 2.00 | 1.99 | 1.97 | 1.95 | 1.93 | 1.91 | 1.89 | 1.88 | 1.87 | 1.86 | 1.85 | 1.84 | 1.84 | 1.83 | 1.82 | 1.82 | 1.82 | 1.82 | 1.82 |
| Births input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 469 | 462 | 468 | 472 | 477 | 478 | 477 | 480 | 484 | 488 | 493 | 496 | 502 | 507 | 515 | 522 | 530 | 539 | 547 | 556 |
| Female | 547 | 548 | 544 | 537 | 538 | 533 | 528 | 524 | 522 | 521 | 520 | 522 | 523 | 526 | 529 | 533 | 538 | 544 | 549 | ${ }_{557}$ |
| All deaths | 1,016 | 1,010 | 1,012 | 1,009 | 1,015 | 1,011 | 1,005 | 1,004 | 1,007 | 1,009 | 1,013 | 1,018 | 1,025 | 1,033 | 1,044 | 1,055 | 1,068 | 1,082 | 1,096 | 1,113 |
| SMR: males | 88.1 | 83.9 | 82.6 | 81.1 | 79.9 | 77.9 | 75.9 | 74.5 | 73.2 | 71.6 | 70.5 | 68.9 | 67.8 | 66.6 | 65.7 | 64.7 | 63.8 | 63.1 | ${ }^{62.3}$ | 61.7 |
| SMR: females | 89.4 | 87.7 | 85.8 | 83.0 | 82.0 | 80.2 | 78.3 | 76.5 | 75.0 | ${ }^{73.3}$ | 71.7 | 70.4 | 69.0 | 67.8 | 66.5 | 65.3 | 64.2 | 63.3 | 62.3 | 61.5 |
| SMR: male \& female | 88.8 | 85.9 | 84.3 | 82.1 | 81.0 | 79.1 | 77.1 | 75.5 | 74.1 | ${ }^{72.5}$ | 71.1 | 69.7 | 68.4 | 67.2 | 66.1 | 65.0 | 64.0 | 63.2 | 62.3 | 61.6 |
| Expectation of life | 81.9 | 82.2 | 82.3 | 82.5 | 82.6 | 82.8 | 83.0 | 83.1 | 83.2 | 83.3 | 83.4 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 | 84.2 | 84.2 | 84.3 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 4,061 | 3,377 | 3,538 | 3,478 | 3,436 | 3,448 | 3,411 | 3,443 | 3,444 | 3,427 | 3,442 | 3,433 | 3,475 | 3,452 | 3,452 | 3,420 | 3,385 | 3,390 | 3,376 | 3,339 |
| Female | 4,440 | 3,732 | 3,922 | 3,884 | 3,849 | 3,906 | 3,888 | 3,918 | 3,910 | 3,909 | 3,932 | 3,931 | 3,998 | 3,978 | 3,981 | 3,947 | 3,917 | 3,941 | 3,947 | 3,915 |
| All | 8.501 | 7,109 | 7,460 | 7,362 | 7,285 | 7,353 | 7,299 | 7,361 | 7,354 | 7,336 | 7,374 | 7,364 | 7,472 | 7,430 | 7,433 | 7,366 | 7,302 | 7,331 | 7,324 | 7,253 |
| SMigR: males | 66.3 | 53.1 | 55.5 | 54.0 | 53.0 | 53.0 | 52.2 | 52.6 | 52.5 | 52.1 | 52.2 | 51.9 | 52.4 | 51.8 | 51.5 | 50.7 | 49.9 | 49.8 | 49.3 | 48.4 |
| SMigR: females | 71.9 | 57.3 | 59.7 | 58.1 | 57.0 | 57.6 | 57.1 | 57.3 | 57.0 | 56.9 | 57.1 | 57.0 | 57.8 | 57.1 | 56.6 | 55.4 | 54.4 | 54.2 | 53.7 | 52.8 |
| Migrants input |  |  | * | * | * | * | * | * | * | * |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,739 | 3,367 | 3,194 | 3,226 | 3,251 | 3,208 | 3,224 | 3,191 | 3,200 | 3,206 | 3,184 | 3,195 | 3,138 | 3,161 | 3,162 | 3,192 | 3,222 | 3,196 | 3,189 | 3,215 |
| Female | 2,989 | 3,752 | 3,573 | 3,640 | 3,693 | 3,667 | 3,705 | 3,676 | 3,674 | 3,686 | 3,671 | 3,669 | 3,617 | 3,637 | 3,633 | 3,670 | 3,704 | 3,701 | 3,715 | 3,760 |
| All | 5.727 | 7,119 | 6,768 | 6,866 | 6,943 | 6,875 | 6,929 | 6,867 | 6,874 | 6,892 | 6,854 | 6,864 | 6,756 | 6,798 | 6,795 | 6,862 | 6,926 | 6,897 | 6,904 | 6,975 |
| SMigR: males | 44.7 | 52.9 | 50.1 | 50.0 | 50.1 | 49.3 | 49.3 | 48.7 | 48.7 | 48.7 | 48.3 | 48.3 | 47.3 | 47.4 | 47.2 | 47.3 | 47.5 | 46.9 | 46.6 | 46.7 |
| SMigR: females | 48.4 | 57.6 | 54.4 | 54.5 | 54.7 | 54.1 | 54.4 | 53.8 | 53.5 | 53.6 | 53.3 | 53.2 | 52.3 | 52.2 | 51.7 | 51.5 | 51.5 | 50.9 | 50.6 | 50.7 |
| Migrants input | - | * | * | * | * | * | * | . | . | * | * | * | * | . | . | * | . | * |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 766 | 761 | 759 | 757 | 756 | 753 | 751 | 749 | 748 | 747 | 746 | 746 | 744 | 741 | 738 | ${ }^{737}$ | 736 | 735 | 734 | 732 |
| Female | 677 | 682 | 684 | 686 | 687 | 690 | 692 | 694 | 695 | 696 | 697 | 697 | 699 | 702 | 705 | 706 | 707 | 708 | 709 | 711 |
| All | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 |
| SMigR: males | 176.7 | 168.2 | 167.5 | 165.4 | 164.3 | 163.5 | 162.6 | 162.3 | 162.0 | 162.0 | 162.2 | 162.3 | 162.0 | 161.2 | 160.4 | 159.6 | 159.1 | 158.6 | 157.5 | 156.4 |
| SMigR: females | 167.0 | 158.1 | 156.9 | 154.1 | 152.1 | 151.1 | 150.3 | 150.0 | 149.3 | 149.0 | 149.3 | 149.1 | 149.6 | 149.8 | 149.8 | 149.3 | 148.7 | 148.3 | 147.5 | 146.5 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 743 | 738 | 734 | 730 | 728 | 725 | 724 | 722 | 720 | 719 | 718 | 718 | 717 | 716 | 714 | 712 | 711 | 710 | 709 | 708 |
| Female | 586 | 591 | 595 | 599 | 601 | 604 | 605 | 607 | 609 | 610 | 611 | 611 | 612 | 613 | 615 | 617 | 618 | 619 | 620 | 621 |
| All | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 |
| SMigR: males | 171.5 | 163.1 | 162.1 | 159.6 | 158.2 | 157.5 | 156.8 | 156.4 | 156.1 | 156.0 | 156.2 | 156.2 | 156.2 | 155.8 | 155.1 | 154.3 | 153.7 | 153.0 | 152.2 | 151.2 |
| SMigR: females | 144.5 | 137.1 | 136.4 | 134.4 | 133.0 | 132.2 | 131.3 | 131.2 | 130.7 | 130.6 | 130.8 | 130.6 | 130.9 | 130.8 | 130.7 | 130.4 | 130.0 | 129.8 | 129.0 | 128.0 |
| Migrants input | . | * | . |  |  |  |  |  | - | . | - | . | - | - | . | . | * | . | - | * |




| 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 | ${ }_{6}^{6,676}$ | 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 | ${ }_{6}^{6,313}$ | ${ }^{6,356}$ | ${ }_{6}^{6,377}$ | ${ }^{6.521}$ | ${ }^{6,744}$ | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 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 |  | 010 |
| Labour Force |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (1) |
| 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 |  | N |
| 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 |  | $\checkmark$ |
| 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 |  |  |


| 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 | 459 | 490 | 488 | 487 | 489 | 484 | 481 | 478 | 474 | 471 | 466 | 462 | 457 | 454 | 452 | 449 | 447 | 445 | 444 | 442 |
| Female | 437 | 467 | 465 | 464 | 466 | 461 | 458 | 455 | 452 | 448 | 444 | 440 | 436 | 432 | 431 | 428 | 425 | 424 | 422 | 420 |
| All Biths | 896 | 956 | 953 | 951 | 955 | 945 | 939 | ${ }_{93}$ | 926 | 919 | 910 | 902 | 893 | 886 | 883 | 877 | 872 | 869 | 866 | 862 |
| 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 | 379 | 390 | 396 | 399 | 400 | 406 | 411 | 417 | 423 | 428 | 434 | 442 | 450 | 459 | 466 | 476 | 486 | 496 | 505 | 513 |
| Female | 398 | 406 | 411 | 420 | 419 | 420 | 423 | 426 | 429 | 431 | 435 | 438 | 443 | 448 | 454 | 462 | 469 | 477 | 485 | 494 |
| All deaths | 778 | 796 | 806 | 819 | 819 | 826 | 835 | 844 | 852 | 859 | 869 | 880 | 893 | 907 | 920 | 937 | 956 | 972 | 990 | 1,007 |
| SMR: males | 91.0 | 89.0 | 87.6 | 85.4 | 82.8 | 81.3 | 79.6 | 78.2 | 76.7 | 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 | 76.4 | 75.0 | ${ }^{73.3}$ | 71.9 | 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 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.0 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,935 | 2,351 | 2,471 | 2,451 | 2,407 | 2,400 | 2,412 | 2,368 | 2,401 | 2,400 | 2,418 | 2,415 | 2,434 | 2,448 | 2,466 | 2,480 | 2,451 | 2,451 | 2,439 | 2,451 |
| Female | 3,259 | 2,619 | 2,737 | 2,703 | 2,641 | 2,620 | 2,616 | 2,549 | 2,569 | 2,547 | 2,547 | 2.535 | 2,550 | 2,549 | 2,562 | 2,567 | 2,533 | 2,531 | 2,509 | 2,522 |
| All | 6,195 | 4,970 | 5,208 | 5,154 | 5,048 | 5,020 | 5,028 | 4,917 | 4,970 | 4,947 | 4,965 | 4,950 | 4,985 | 4,998 | 5,028 | 5,047 | 4,984 | 4,982 | 4,948 | 4,973 |
| SMigR: males | 75.6 | 57.7 | 60.2 | 58.9 | 57.1 | 56.4 | 56.2 | 54.7 | 55.2 | 55.0 | 55.2 | 54.9 | 55.2 | 55.2 | 55.3 | 55.2 | 54.2 | 53.9 | 53.3 | 53.3 |
| SMigR: females | 83.6 | 63.9 | 66.6 | 65.0 | 63.1 | 62.4 | 62.1 | 60.4 | 61.1 | 60.6 | 60.6 | 60.3 | 60.7 | 60.6 | 60.6 | 60.2 | 58.9 | 58.5 | 57.6 | 57.6 |
| Migrants input |  |  | * | * |  |  | * | * |  | * | * | * | * |  |  |  | * |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,521 | 2,091 | 1,986 | 2,014 | 2,069 | 2,087 | 2,090 | 2,149 | 2,131 | 2,149 | 2,148 | 2,161 | 2,147 | 2,146 | 2,134 | 2,129 | 2,160 | 2,159 | 2,178 | 2,166 |
| Female | 1,721 | 2,376 | 2,244 | 2,269 | 2,320 | 2,330 | 2,319 | 2,371 | 2,336 | 2,341 | 2,324 | 2,326 | 2,305 | 2,293 | 2,275 | 2,261 | 2,293 | 2,296 | 2,311 | 2,298 |
| All | 3,242 | 4,467 | 4,229 | 4,283 | 4,389 | 4,417 | 4,409 | 4,520 | 4,467 | 4,490 | 4,472 | 4,487 | 4,452 | 4,439 | 4,409 | 4,390 | 4,453 | 4,455 | 4.489 | 4,464 |
| SMigR: males | 39.2 | 51.4 | 48.4 | 48.4 | 49.0 | 49.0 | 48.7 | 49.6 | 49.0 | 49.2 | 49.1 | 49.2 | 48.7 | 48.4 | 47.9 | 47.4 | 47.7 | 47.4 | 47.6 | 47.1 |
| SMigR: females | 44.1 | 57.9 | 54.6 | 54.6 | 55.4 | 55.5 | 55.1 | 56.2 | 55.5 | 55.7 | 55.3 | 55.4 | 54.9 | 54.5 | 53.8 | 53.0 | 53.3 | 53.0 | 53.0 | 52.5 |
| Migrants input |  | * | * | * | * | * | * | * | * | * | * | * | * |  | * | * | * |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 168 | 168 | 168 | 169 | 169 | 170 | 170 | 171 | 172 | 173 | 174 | 174 | 174 | 175 | 175 | 176 | 176 | 176 | 177 | 177 |
| Female | 146 | 146 | 146 | 145 | 145 | 144 | 144 | 143 | 142 | 141 | 140 | 140 | 140 | 139 | 139 | 138 | 138 | 138 | 137 | 137 |
| All | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 | 314 |
| SMigR: males | 64.3 | 60.9 | 60.7 | 59.7 | 59.0 | 58.6 | 58.3 | 58.1 | 58.3 | 58.5 | 58.6 | 58.7 | 58.7 | 58.8 | 58.9 | 58.7 | 58.5 | 58.3 | 58.1 | 57.9 |
| SMigR: females | 57.3 | 54.3 | 53.9 | 53.1 | 52.5 | 52.1 | 51.9 | 51.6 | 51.6 | 51.5 | 51.5 | 51.7 | 51.8 | 51.8 | 51.6 | 51.4 | 51.1 | 50.9 | 50.7 | 50.5 |
| Migrants input |  |  | * | * |  |  | * | * |  |  | - | * |  |  | * | * |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 134 | 133 | 134 | 134 | 134 | 135 | 135 | 135 | 136 | 136 | 137 | 137 | 138 | 138 | 138 | 138 | 139 | 139 | 139 | 139 |
| Female | 109 | 110 | 109 | 109 | 109 | 108 | 108 | 108 | 107 | 107 | 106 | 106 | 105 | 105 | 105 | 105 | 104 | 104 | 104 | 104 |
| All | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 |
| SMigR: males | 51.3 | 48.5 | 48.2 | 47.5 | 46.9 | 46.5 | 46.2 | 46.0 | 46.1 | 46.1 | 46.2 | 46.3 | 46.3 | 46.4 | 46.3 | 46.2 | 46.0 | 45.9 | 45.7 | 45.6 |
| SMigR: females | 42.8 | 40.6 | 40.4 | 39.8 | 39.3 | 39.1 | 39.0 | 38.9 | 38.9 | 38.9 | 38.9 | 39.0 | 39.1 | 39.1 | 39.1 | 38.9 | 38.7 | 38.6 | 38.4 | 38.3 |
| Migrants input |  | * | * | * | * | - | * | * | * | * | * | * | * | * | * | * | * | * |  | * |


| 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 | 85,990 | 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 | 15,936 |  |
| Population impact of constraint |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 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 |  | ט0 |
| Labour Force |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Q |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (1) |
| Number of Labour Force Change over previous year | 41,800 -527 | 43,369 $+1,569$ | 43,447 +78 | 43,833 +386 | 44,144 +311 | 44,344 +200 | 44,469 +126 | 44,582 +113 | 44,646 +64 | 44,685 +39 | 44,675 -10 | 44,665 -10 | 44,691 +27 | $\underset{+85}{44,77}$ | 44,875 +98 | $\begin{array}{r}44,997 \\ +122 \\ \hline\end{array}$ | 45,107 +110 | 45,217 +110 | 45,339 +122 | 45,449 +110 | 45,546 +98 | 3,747 | N |
| 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 | $\xrightarrow{1}$ |
| 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 |  | 0 |
| 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 |  |  |

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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury
JCS_inplscenario_EXPERIAN EMPLOYMENT LED.xIs
Tick to save as new flat file

| It was run on 05/09/2012 at 15:57:39 | Produce flat file <br> Clicking the button will copy <br> all data from this <br> components file onto a <br> single sheet in another <br> workbook (for pivots, etc) |  | << Append to (blank if not to be appended) <br> << Save flat file with this name (may be blank if to be appended to an existing file) |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | G:IHEaDROOM11. POPGROUP v3.1 DF CompatiblelModel Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_EXPERIAN EMPLOYMENT LED.xIs |  |

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.

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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.
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 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.

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

| 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 | 0 |
| 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 | 0 |
| 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 | (1) |
| 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 | (1) |
| 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 |  |
| 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 |  |
| 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 |  |
| This report was compiled fro | duced on | 05/09/2012 | using PO | PROUP | software de | veloped by | Bradford | Council, the | University | of Manch | ester and | Andelin Ass | sociates |  |  |  |  |  |  |  |  |  |

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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
CompatiblelModel Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury
JCS_inplscenario_EXPERIAN EMPLOYMENT LED LOW UNEMP.xIs
Tick to save as new flat file

| Produce flat file |  | << Append to (blank if not to be appended) |
| :---: | :---: | :---: |
| Clicking the button will copy <br> all data from this |  |  |
| components file onto a single sheet in another workbook (for pivots, etc) | G:IHEaDROOM\1. POPGROUP v3.1 DF <br> Compatible\Model Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_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.

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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.
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 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.

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

| Population Estim | nd For | ecas |  |  | NS | 08 | U | HOL | P | JEC | $10 N S$ |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Components of Pop | Chan |  |  | helt, | louc, | Tewk |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ing July |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,963 | 1,973 | 1,962 | 1,977 | 1,997 | 2,017 | 2,032 | 2,042 | 2,053 | 2,060 | 2,063 | 2,062 | 2,059 | 2,056 | 2,053 | 2,051 | 2,048 | 2,047 | 2,046 | 2,046 |
| Female | 1,870 | 1,879 | 1,869 | 1,883 | 1,902 | 1,921 | 1,935 | 1,945 | 1,956 | 1,962 | 1,965 | 1,964 | 1,961 | 1,958 | 1,956 | 1,953 | 1,951 | 1,949 | 1,948 | 1,948 |
| All Births | 3,833 | 3,853 | 3,831 | 3,860 | 3,899 | 3,939 | 3,967 | 3,988 | 4,009 | 4,022 | 4,028 | 4,026 | 4,021 | 4,015 | 4,009 | 4,004 | 3,999 | 3,996 | 3,994 | 3,994 |
| TFR | 1.91 | 1.90 | 1.88 | 1.87 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 |
| Births input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,313 | 1,295 | 1,311 | 1,313 | 1,315 | 1,322 | 1,329 | 1,341 | 1,352 | 1,364 | 1,378 | 1,395 | 1,417 | 1,439 | 1,460 | 1,485 | 1,509 | 1,536 | 1,563 | 1,590 |
| Female | 1,461 | 1,450 | 1,448 | 1,440 | 1,434 | 1,424 | 1,418 | 1,416 | 1,414 | 1,415 | 1,418 | 1,423 | 1,432 | 1,441 | 1,450 | 1,466 | 1,484 | 1,503 | 1,526 | 1,553 |
| All deaths | 2,774 | 2,745 | 2,759 | 2,753 | 2,749 | 2,746 | 2,747 | 2,757 | 2,766 | 2,779 | 2,796 | 2,818 | 2,848 | 2,879 | 2,910 | 2,950 | 2,993 | 3,039 | 3,088 | 3,143 |
| SMR: males | 87.6 | 84.0 | 82.6 | 80.4 | 78.3 | 76.4 | 74.6 | 73.2 | 71.6 | 70.1 | 68.7 | 67.4 | 66.4 | 65.4 | 64.3 | 63.4 | 62.5 | 61.8 | 61.1 | 60.6 |
| SMR: females | 89.3 | 86.8 | 85.2 | 83.1 | 81.3 | 79.3 | 77.5 | 75.8 | 74.1 | 72.5 | 70.9 | 69.4 | 68.1 | 66.7 | 65.4 | 64.2 | 63.1 | 62.1 | 61.3 | 60.6 |
| SMR: male \& female | 88.5 | 85.5 | 83.9 | 81.8 | 79.8 | 77.9 | 76.1 | 74.5 | 72.9 | 71.3 | 69.8 | 68.4 | 67.2 | 66.0 | 64.8 | 63.8 | 62.8 | 62.0 | 61.2 | 60.6 |
| Expectation of life | 82.1 | 82.3 | 82.5 | 82.6 | 82.8 | 83.0 | 83.1 | 83.2 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 | 84.2 | 84.3 | 84.3 | 84.4 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 9,247 | 9,309 | 9,338 | 9,384 | 9,418 | 9,447 | 9,481 | 9,505 | 9,506 | 9,512 | 9,545 | 9,579 | 9,608 | 9,655 | 9,700 | 9,769 | 9,806 | 9,853 | 9,889 | 9,936 |
| Female | 9,801 | 9,854 | 9,883 | 9,909 | 9,939 | 9,955 | 9,964 | 9,977 | 9,967 | 9,962 | 9,976 | 10,008 | 10,050 | 10,089 | 10,158 | 10,229 | 10,293 | 10,346 | 10,390 | 10,456 |
| All | 19,047 | 19,163 | 19,221 | 19,293 | 19,358 | 19,403 | 19,446 | 19,482 | 19,473 | 19,475 | 19,521 | 19,587 | 19,658 | 19,744 | 19,857 | 19,998 | 20,099 | 20,199 | 20,279 | 20,392 |
| SMigR: males | 54.1 | 54.1 | 53.9 | 53.8 | 53.7 | 53.6 | 53.6 | 53.6 | 53.4 | 53.4 | 53.4 | 53.5 | 53.5 | 53.5 | 53.5 | 53.6 | 53.5 | 53.4 | 53.3 | 53.3 |
| SMigR: females | 57.5 | 57.5 | 57.5 | 57.5 | 57.5 | 57.5 | 57.5 | 57.4 | 57.3 | 57.3 | 57.3 | 57.3 | 57.4 | 57.3 | 57.4 | 57.3 | 57.3 | 57.2 | 57.1 | 57.1 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 8,683 | 8,729 | 8,806 | 8,841 | 8,886 | 8,936 | 8,963 | 8,988 | 9,019 | 9,030 | 9,049 | 9,084 | 9,114 | 9,142 | 9,203 | 9,244 | 9,297 | 9,332 | 9,378 | 9,412 |
| Female | 9,480 | 9,532 | 9,560 | 9,578 | 9,594 | 9,598 | 9,618 | 9,616 | 9,625 | 9,613 | 9,627 | 9,646 | 9,647 | 9,682 | 9,748 | 9,836 | 9,882 | 9,939 | 10,007 | 10,042 |
| All | 18,163 | 18,261 | 18,367 | 18,419 | 18,479 | 18,534 | 18,581 | 18,604 | 18,644 | 18,643 | 18,676 | 18,730 | 18,762 | 18,823 | 18,951 | 19,081 | 19,178 | 19,271 | 19,386 | 19,454 |
| SMigR: males | 50.8 | 50.7 | 50.8 | 50.7 | 50.7 | 50.7 | 50.7 | 50.6 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.6 | 50.6 | 50.5 |
| SMigR: females | 55.6 | 55.6 | 55.6 | 55.6 | 55.5 | 55.5 | 55.5 | 55.4 | 55.4 | 55.3 | 55.2 | 55.2 | 55.1 | 55.0 | 55.0 | 55.1 | 55.0 | 55.0 | 55.0 | 54.9 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,788 | 1,791 | 1,791 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 |
| Female | 1,672 | 1,675 | 1,675 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 |
| All | 3,460 | 3,466 | 3,466 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 |
| SMigR: males | 149.3 | 148.1 | 146.8 | 145.7 | 145.0 | 144.5 | 144.2 | 144.0 | 144.0 | 144.1 | 144.2 | 144.3 | 144.4 | 144.4 | 144.1 | 143.7 | 143.0 | 142.3 | 141.5 | 140.7 |
| SMigR: females | 145.7 | 144.7 | 143.8 | 143.0 | 142.6 | 142.4 | 142.3 | 142.3 | 142.3 | 142.5 | 142.7 | 142.9 | 143.0 | 143.1 | 142.9 | 142.4 | 141.8 | 141.1 | 140.4 | 139.6 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,639 | 1,652 | 1,667 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 |
| Female | 1,409 | 1,421 | 1,435 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 |
| All | 3,048 | 3,073 | 3,102 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 |



| Components of Population Change |  |  |  | Cheltenham |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1 st ... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 674 | 672 | 667 | 671 | 677 | 683 | 687 | 692 | 697 | 700 | 702 | 703 | 703 | 703 | 703 | 702 | 702 | 701 | 700 | 699 |
| Female | 641 | 640 | 636 | 639 | 645 | 650 | 655 | 659 | 664 | 667 | 669 | 670 | 670 | 669 | 669 | 669 | 668 | 668 | 667 | 666 |
| All Biths | 1,315 | 1,312 | 1,303 | 1,311 | 1,322 | 1,333 | 1,342 | 1,351 | 1,361 | 1,367 | 1,371 | 1,373 | 1,373 | 1,372 | 1,372 | 1,371 | 1,370 | 1,369 | 1,367 | 1,365 |
| TFR | 1.74 | 1.72 | 1.69 | 1.69 | 1.69 | 1.70 | 1.70 | 1.69 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 |
| Births input | . | * | * | * | * | * | * | * | * | * | * | * | * | * | * |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 470 | 460 | 467 | 466 | 468 | 468 | 469 | 471 | 474 | 477 | 481 | 486 | 492 | 500 | 506 | 515 | 523 | 532 | 542 | 551 |
| Female | 552 | 549 | 546 | 542 | 540 | 536 | 533 | 529 | 528 | 528 | 528 | 529 | 530 | 533 | 536 | 540 | 545 | 551 | 558 | 568 |
| All deaths | 1,023 | 1,010 | 1,013 | 1,008 | 1,008 | 1,005 | 1,001 | 1,000 | 1,002 | 1,005 | 1,009 | 1,015 | 1,022 | 1,033 | 1,042 | 1,055 | 1,068 | 1,083 | 1,100 | 1,119 |
| SMR: males | 84.5 | 80.6 | 79.6 | 77.5 | 75.9 | 74.0 | 72.2 | 70.7 | 69.3 | 67.9 | 66.5 | 65.4 | 64.2 | 63.3 | 62.3 | 61.5 | 60.6 | 59.9 | 59.4 | 58.8 |
| SMR: females | 84.8 | 82.9 | 81.0 | 78.9 | 77.4 | 75.6 | 73.8 | 72.1 | 70.6 | 69.1 | 67.5 | 66.1 | 64.8 | 63.6 | 62.3 | 61.2 | 60.1 | 59.1 | 58.2 | 57.6 |
| SMR: male \& female | 84.7 | 81.8 | 80.4 | 78.2 | 76.7 | 74.8 | 73.0 | 71.4 | 70.0 | 68.5 | 67.0 | 65.8 | 64.5 | 63.5 | 62.3 | 61.3 | 60.3 | 59.5 | 58.8 | 58.2 |
| Expectation of life | 82.5 | 82.8 | 82.9 | 83.1 | 83.3 | 83.4 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 | 84.2 | 84.3 | 84.4 | 84.5 | 84.6 | 84.6 | 84.7 | 84.8 |
| Deaths input |  |  |  | * |  | * |  | * | * | * |  |  | * |  |  | * | * |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,782 | 3,803 | 3,815 | 3,824 | 3,839 | 3,845 | 3,853 | 3,853 | 3,846 | 3,843 | 3,849 | 3,864 | 3,875 | 3,896 | 3,919 | 3,950 | 3,970 | 3,995 | 4,006 | 4,026 |
| Female | 4,126 | 4,142 | 4,148 | 4,156 | 4,167 | 4,168 | 4,169 | 4,166 | 4,152 | 4,143 | 4,152 | 4,165 | 4,190 | 4,213 | 4,242 | 4,288 | 4,315 | 4,336 | 4,357 | 4,381 |
| All | 7,908 | 7,945 | 7,962 | 7,979 | 8,005 | 8,013 | 8,021 | 8,018 | 7,998 | 7,986 | 8,001 | 8,029 | 8,065 | 8,108 | 8,161 | 8,238 | 8,285 | 8,331 | 8,363 | 8,407 |
| SMigR: males | 57.6 | 57.5 | 57.3 | 57.1 | 57.1 | 56.9 | 56.9 | 56.7 | 56.5 | 56.4 | 56.4 | 56.5 | 56.6 | 56.7 | 56.7 | 56.9 | 56.8 | 56.9 | 56.7 | 56.7 |
| SMigR: females | 62.8 | 62.6 | 62.6 | 62.7 | 62.9 | 62.9 | 62.9 | 62.8 | 62.6 | 62.5 | 62.6 | 62.8 | 63.0 | 63.0 | 63.0 | 63.1 | 63.0 | 62.9 | 62.8 | 62.8 |
| Migrants input |  |  | * | * |  |  | . | * |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,653 | 3,683 | 3,710 | 3,722 | 3,732 | 3,750 | 3,758 | 3,764 | 3,770 | 3,767 | 3,774 | 3,778 | 3,782 | 3,789 | 3,815 | 3,833 | 3,855 | 3,866 | 3,894 | 3,910 |
| Female | 4,127 | 4,166 | 4,172 | 4,168 | 4,163 | 4,151 | 4,145 | 4,142 | 4,138 | 4,121 | 4,116 | 4,115 | 4,106 | 4,119 | 4,156 | 4,192 | 4,220 | 4,253 | 4,284 | 4,305 |
| All | 7,780 | 7,849 | 7,882 | 7,890 | 7,895 | 7,901 | 7,904 | 7,906 | 7,909 | 7,889 | 7,890 | 7,894 | 7,888 | 7,908 | 7,971 | 8,025 | 8,075 | 8,120 | 8,178 | 8,215 |
| SMigR: males | 55.7 | 55.6 | 55.7 | 55.6 | 55.5 | 55.5 | 55.5 | 55.4 | 55.4 | 55.3 | 55.3 | ${ }_{55}{ }^{3}$ | 55.2 | 55.1 | 55.2 | 55.2 | 55.2 | 55.0 | 55.1 | 55.1 |
| SMigR: females | 62.8 | 63.0 | 63.0 | 62.9 | 62.8 | 62.6 | ${ }^{62.5}$ | 62.4 | 62.4 | 62.2 | 62.1 | 62.0 | 61.7 | 61.6 | 61.7 | 61.7 | 61.6 | 61.7 | 61.7 | 61.7 |
| Migrants input |  | * | * | * | * | * | * | * | * | * |  |  | * |  | * | * | * |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 990 | 991 | 991 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 | 990 |
| Female | 943 | 944 | 944 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 | 943 |
| All | 1,932 | 1,936 | 1,936 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 | 1,933 |
| SMigR: males | 211.4 | 209.3 | 207.4 | 205.8 | 205.0 | 204.4 | 204.1 | 204.0 | 204.1 | 204.3 | 204.7 | 205.0 | 205.2 | 205.2 | 204.8 | 204.1 | 203.2 | 202.1 | 200.9 | 199.7 |
| SMigR: females | 216.4 | 214.6 | 213.2 | 212.3 | 211.9 | 211.8 | 211.9 | 212.1 | 212.3 | 212.8 | 213.4 | 213.8 | 214.1 | 214.0 | 213.5 | 212.6 | 211.5 | 210.3 | 209.1 | 207.9 |
| Migrants input |  |  | * | * | * | * | * | * |  | * |  | * | * | * |  | * | - | - | * |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 849 | 856 | 864 | 873 | 873 | 873 | 873 | 873 | ${ }^{873}$ | 873 | ${ }^{873}$ | 873 | 873 | 873 | 873 | 873 | 873 | 873 | 873 | 873 |
| Female | 737 | 744 | 752 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 | 760 |
| All | 1,586 | 1,600 | 1,616 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 | 1,632 |
| SMigR: males | 181.3 | 180.6 | 180.7 | 181.4 | 180.8 | 180.2 | 179.9 | 179.8 | 179.9 | 180.1 | 180.5 | 180.7 | 180.9 | 180.9 | 180.6 | 180.0 | 179.2 | 178.2 | 177.1 | 176.1 |
| SMigR: females | 169.2 | 169.0 | 169.7 | 17.9 | 170.7 | 170.6 | 170.6 | 170.8 | 171.0 | 171.4 | 171.8 | 172.2 | 172.4 | 172.3 | 171.9 | 171.2 | 170.3 | 169.3 | 168.4 | 167.5 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | - | * | * |  | * | * | * | * | * |



| Components of Population Change |  |  |  | Gloucester |  | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | g July |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 868 | 881 | 875 | 884 | 894 | 905 | 911 | 915 | 918 | 920 | 920 | 918 | 915 | 913 | 912 | 911 | 911 | 911 | 912 | 914 |
| Female | 827 | 839 | 833 | 842 | 852 | 862 | 868 | 871 | 874 | 876 | 876 | 874 | 872 | 870 | 868 | 868 | 867 | 868 | 869 | 871 |
| All Biths | 1,694 | 1,720 | 1,708 | 1,726 | 1,746 | 1,766 | 1,779 | 1,786 | 1,792 | 1,795 | 1,795 | 1,792 | 1,787 | 1,783 | 1,780 | 1,779 | 1,778 | 1,779 | 1,781 | 1,785 |
| TFR | 2.09 | 2.09 | 2.05 | 2.05 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 | 2.06 |
| Births input |  |  |  |  |  |  |  |  |  | . | * |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 478 | 471 | 477 | 476 | 475 | 476 | 478 | 483 | 486 | 489 | 493 | 498 | 506 | 513 | 520 | 527 | 534 | 542 | 551 | 561 |
| Female | 511 | 503 | 500 | 496 | 493 | 488 | 484 | 484 | 482 | 482 | 482 | 483 | 485 | 488 | 490 | 495 | 501 | 508 | 516 | 524 |
| All deaths | 989 | 974 | 977 | 972 | 968 | 965 | 963 | 967 | 968 | 971 | 975 | 981 | 991 | 1,001 | 1,010 | 1,022 | 1,035 | 1,050 | 1,067 | 1,086 |
| SMR: males | 94.7 | 90.7 | 89.2 | 86.8 | 84.2 | 82.2 | 80.2 | 78.7 | 77.0 | 75.3 | 73.7 | ${ }^{72.3}$ | 71.3 | 70.1 | 68.9 | 67.8 | 66.7 | 65.8 | 65.0 | 64.4 |
| SMR: females | 99.0 | 95.8 | 93.9 | 91.8 | 89.7 | 87.4 | 85.4 | 83.8 | 81.7 | 80.1 | 78.3 | 76.7 | 75.2 | 73.7 | 72.2 | 71.0 | 69.8 | 68.7 | 67.8 | 67.1 |
| SMR: male \& female | 96.9 | 93.3 | 91.6 | 89.3 | 86.9 | 84.7 | 82.7 | 81.2 | 79.3 | 77.6 | 75.9 | 74.4 | ${ }^{73.2}$ | 71.8 | 70.5 | 69.3 | 68.2 | 67.2 | 66.4 | 65.7 |
| Expectation of life | 81.2 | 81.5 | 81.7 | 81.9 | 82.1 | 82.2 | 82.4 | 82.5 | 82.6 | 82.7 | 82.9 | 83.0 | 83.1 | 83.2 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.7 |
| Deaths input |  | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,020 | 3,030 | 3,037 | 3,052 | 3,062 | 3,066 | 3,078 | 3,085 | 3,081 | 3,079 | 3,092 | 3,105 | 3,109 | 3,125 | 3,137 | 3,156 | 3,169 | 3,178 | 3,191 | 3,205 |
| Female | 3,008 | 3,023 | 3,036 | 3,038 | 3,048 | 3,050 | 3,051 | 3,054 | 3,049 | 3,046 | 3,046 | 3,054 | 3,065 | 3,071 | 3,094 | 3,109 | 3,128 | 3,143 | 3,153 | 3,176 |
| All | 6,027 | 6,053 | 6,073 | 6,990 | 6,110 | 6,115 | 6,129 | 6,139 | 6,130 | 6,124 | 6,138 | 6,158 | 6,175 | 6,196 | 6,231 | 6,265 | 6,297 | 6,321 | 6,343 | 6,381 |
| SMigR: males | 45.1 | 44.8 | 44.5 | 44.3 | 44.2 | 44.0 | 43.9 | 43.9 | 43.7 | 43.6 | 43.7 | 43.7 | 43.6 | 43.7 | 43.6 | 43.6 | 43.5 | 43.4 | 43.3 | 43.2 |
| SMigR: females | 45.5 | 45.4 | 45.4 | 45.2 | 45.1 | 45.0 | 44.9 | 44.8 | 44.7 | 44.6 | 44.5 | 44.5 | 44.5 | 44.4 | 44.5 | 44.3 | 44.3 | 44.2 | 44.1 | 44.2 |
| Migrants input |  |  |  |  |  | * | . | * |  | * | * | * | * | * | * | * | * |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,791 | 2,821 | 2,849 | 2,867 | 2,885 | 2,905 | 2,916 | 2,925 | 2,937 | 2,947 | 2,954 | 2,961 | 2,980 | 2,991 | 3,010 | 3,030 | 3,043 | 3,057 | 3,070 | 3,080 |
| Female | 2,900 | 2,914 | 2,922 | 2,939 | 2,954 | 2,968 | 2,977 | 2,980 | 2,986 | 2,988 | 2,996 | 3,04 | 3,006 | 3,022 | 3,035 | 3,063 | 3,074 | 3,091 | 3,113 | 3,120 |
| All | 5,691 | 5,735 | 5,771 | 5,807 | 5,839 | 5,873 | 5,893 | 5,904 | 5,923 | 5,935 | 5,950 | 5,966 | 5,986 | 6,012 | 6,045 | 6,093 | 6,117 | 6,148 | 6,183 | 6,200 |
| SMigR: males | 41.7 | 41.7 | 41.7 | 41.6 | 41.6 | 41.7 | 41.6 | 41.6 | 41.7 | 41.7 | 41.7 | 41.7 | 41.8 | 41.8 | 41.8 | 41.8 | 41.8 | 41.7 | 41.7 | 41.6 |
| SMigR: females | 43.8 | 43.8 | 43.7 | 43.7 | 43.7 | 43.8 | 43.8 | 43.7 | 43.8 | 43.7 | 43.8 | 43.8 | 43.7 | 43.7 | 43.6 | 43.7 | 43.5 | 43.5 | 43.5 | 43.4 |
| Migrants input |  |  | * | * | * |  | * | * |  |  |  | * | * |  |  | * |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 592 | 593 | 593 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 | 592 |
| Female | 533 | 534 | 534 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 | 533 |
| All | 1,125 | 1,127 | 1,127 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 | 1,125 |
| SMigR: males | 125.5 | 124.2 | 122.9 | 121.7 | 120.9 | 120.3 | 119.9 | 119.6 | 119.5 | 119.6 | 119.7 | 119.8 | 119.8 | 119.8 | 119.5 | 119.1 | 118.5 | 117.9 | 117.1 | 116.4 |
| SMigR: females | 116.7 | 115.7 | 114.8 | 114.0 | 113.5 | 113.1 | 112.8 | 112.7 | 112.7 | 112.7 | 112.8 | 112.9 | 112.9 | 112.9 | 112.8 | 112.4 | 111.9 | 111.4 | 110.7 | 110.1 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 606 | 610 | 616 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 | 621 |
| Female | 513 | 517 | 522 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 |
| All | 1,119 | 1,127 | 1,137 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 |
| SMigR: males | 128.4 | 127.8 | 127.6 | 127.6 | 126.8 | 126.2 | 125.7 | 125.4 | 125.3 | 125.4 | 125.5 | 125.6 | 125.7 | 125.6 | 125.3 | 124.9 | 124.3 | 123.6 | 122.8 | 122.1 |
| SMigR: females | 112.4 | 112.1 | 112.2 | 112.6 | 112.1 | 111.7 | 111.4 | 111.3 | 111.3 | 111.3 | 111.4 | 111.5 | 111.6 | 111.6 | 111.4 | 111.0 | 110.6 | 110.0 | 109.4 | 108.7 |
| Migrants input | - |  | - |  | - | * | - | - | * | - | - | * | - | * | - | - | - | - | * | - |



| Components of Population Change |  |  |  | Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ng July |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 422 | 420 | 420 | 422 | 426 | 430 | 433 | 436 | 438 | 440 | 441 | 441 | 441 | 440 | 439 | 437 | 436 | 434 | 433 | 433 |
| Female | 402 | 400 | 400 | 402 | 406 | 409 | 413 | 415 | 418 | 419 | 420 | 420 | 420 | 419 | 418 | 416 | 415 | 414 | 413 | 412 |
| All Biths | 824 | 821 | 820 | 823 | 831 | 839 | 846 | 851 | 856 | 860 | 861 | 862 | 861 | 859 | 856 | 854 | 851 | 848 | 846 | 844 |
| TFR | 1.92 | 1.91 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 |
| Births input | * | * | * |  | * | * | * |  | * | * | * | * |  | * |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 365 | 364 | 367 | 371 | 373 | 377 | 382 | 387 | 393 | 397 | 404 | 411 | 418 | 426 | 434 | 443 | 452 | 462 | 469 | 477 |
| Female | 398 | 397 | 402 | 402 | 400 | 400 | 401 | 403 | 404 | 405 | 409 | 411 | 416 | 420 | 424 | 430 | 438 | 444 | 452 | 461 |
| All deaths | 762 | 761 | 769 | 772 | 773 | 77 | 783 | 790 | 797 | 803 | 812 | 822 | 834 | 846 | 858 | 873 | 890 | 906 | 921 | 938 |
| SMR: males | 83.3 | 80.6 | 78.6 | 76.7 | 74.5 | 72.9 | 71.4 | 70.0 | 68.6 | 67.0 | 65.7 | 64.6 | 63.6 | 62.6 | 61.6 | 61.0 | 60.3 | 59.7 | 59.0 | 58.4 |
| SMR: females | 84.8 | 82.5 | 81.5 | 79.6 | 77.5 | 75.6 | 74.1 | 72.5 | 70.8 | 69.3 | 67.8 | 66.3 | 65.2 | 63.8 | 62.5 | 61.4 | 60.4 | 59.4 | 58.6 | 58.0 |
| SMR: male \& female | 84.1 | 81.6 | 80.1 | 78.2 | 76.0 | 74.3 | 72.7 | 71.2 | 69.7 | 68.1 | 66.8 | 65.4 | 64.4 | 63.2 | 62.0 | 61.2 | 60.4 | 59.6 | 58.8 | 58.2 |
| Expectation of life | 82.4 | 82.6 | 82.8 | 82.9 | 83.1 | 83.2 | 83.4 | 83.5 | 83.6 | 83.7 | 83.9 | 84.0 | 84.1 | 84.2 | 84.3 | 84.4 | 84.5 | 84.5 | 84.6 | 84.7 |
| Deaths input |  |  | * |  |  | * | * | * | * |  | * | * | * |  |  | * |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2.445 | 2,476 | 2,486 | 2,508 | 2.517 | 2,537 | 2,551 | 2,568 | 2,580 | 2.590 | 2,603 | 2,610 | 2,624 | 2,634 | 2,643 | 2,663 | 2,668 | 2,679 | 2,993 | 2,705 |
| Female | 2,667 | 2,689 | 2,699 | 2,715 | 2,725 | 2,737 | 2,745 | 2,757 | 2,765 | 2,774 | 2,778 | 2,790 | 2,794 | 2,805 | 2,822 | 2,833 | 2,850 | 2,868 | 2,880 | 2,900 |
| All | 5,111 | 5,166 | 5,185 | 5,223 | 5,242 | 5,274 | 5,296 | 5,326 | 5,345 | 5,364 | 5,381 | 5,400 | 5,418 | 5,439 | 5,465 | 5,496 | 5,518 | 5,547 | 5,573 | 5,605 |
| SMigR: males | 63.9 | 64.6 | 64.6 | 64.9 | 64.9 | 65.1 | 65.2 | 65.4 | 65.5 | 65.6 | 65.7 | 65.6 | 65.6 | 65.6 | ${ }_{656}$ | 65.7 | 65.5 | ${ }^{65.5}$ | 65.5 | 65.5 |
| SMigR: females | 69.1 | 69.6 | 69.6 | 69.9 | 70.0 | 70.2 | 70.1 | 70.3 | 70.4 | 70.4 | 70.3 | 70.3 | 70.2 | 70.3 | 70.2 | 70.0 | 70.1 | 70.2 | 70.1 | 70.2 |
| Migrants input |  |  | * | * | * |  | * | * | * |  | * | * | * |  |  | * |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,239 | 2,225 | 2,248 | 2,252 | 2,268 | 2,281 | 2,288 | 2,300 | 2,311 | 2,316 | 2,321 | 2,344 | 2,352 | 2,362 | 2,378 | 2,381 | 2,399 | 2,409 | 2.414 | 2,422 |
| Female | 2,453 | 2,452 | 2,466 | 2,471 | 2,477 | 2,480 | 2,496 | 2,495 | 2,501 | 2,504 | 2,515 | 2,526 | 2,535 | 2,541 | 2,556 | 2,582 | 2,588 | 2,595 | 2,610 | 2,618 |
| All | 4,692 | 4,677 | 4,714 | 4,723 | 4,746 | 4,761 | 4,784 | 4,794 | 4,813 | 4,820 | 4,836 | 4,870 | 4,887 | 4,903 | 4,934 | 4,963 | 4,987 | 5,003 | 5,024 | 5,040 |
| SMigR: males | 58.6 | 58.1 | 58.4 | 58.3 | 58.5 | 58.5 | 58.5 | 58.6 | 58.7 | 58.6 | 58.6 | 58.9 | 58.8 | 58.9 | 59.0 | 58.8 | 58.9 | 58.8 | 58.7 | 58.6 |
| SMigR: females | 63.6 | 63.4 | 63.6 | 63.6 | 63.6 | 63.6 | 63.8 | 63.6 | 63.7 | 63.6 | 63.7 | 63.7 | 63.7 | 63.6 | 63.6 | 63.8 | 63.7 | 63.5 | 63.5 | 63.4 |
| Migrants input |  | * | * | . | - | - | * | - | * | * | . | . | * | * | - | * | - |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 206 | 207 | 207 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 |
| Female | 196 | 197 | 197 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 |
| All | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 |
| SMigR: males | 80.1 | 80.0 | 79.7 | 79.3 | 79.2 | 79.1 | 79.0 | 78.9 | 78.9 | 78.8 | 78.9 | 78.8 | 78.8 | 78.8 | ${ }^{78.7}$ | 78.5 | 78.3 | 78.0 | ${ }^{77.7}$ | 77.4 |
| SMigR: females | 76.9 | 76.8 | 76.5 | 76.3 | 76.2 | 76.2 | 76.1 | 76.2 | 76.2 | 76.3 | 76.3 | 76.4 | 76.5 | 76.6 | 76.6 | 76.4 | 76.3 | 76.1 | 75.8 | 75.5 |
| Migrants input |  | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | - | - |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 184 | 186 | 187 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 |
| Female | 159 | 160 | 162 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| All | 343 | 346 | 349 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 |
| SMigR: males | 71.6 | 71.9 | ${ }^{72.3}$ | 72.8 | 72.7 | 72.6 | 72.5 | 72.4 | 72.4 | ${ }^{72.3}$ | 72.4 | ${ }^{72.3}$ | ${ }^{72.3}$ | ${ }^{72.3}$ | 72.2 | 72.1 | 71.8 | 71.6 | 71.3 | 71.0 |
| SMigR: females | 62.4 | 62.6 | 63.0 | 63.5 | 63.4 | 63.4 | 63.4 | 63.4 | 63.5 | 63.5 | 63.6 | ${ }^{63.6}$ | 63.7 | 63.8 | 63.8 | ${ }^{63.6}$ | 63.5 | 63.4 | 63.1 | 62.9 |
| Migrants input | * |  | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |  |



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This file was produced using the scenario file G:IHEaDROOM11. POPGROUP v3.1 DF

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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) |  |  |
|  | G:IHEaDROOM\1. POPGROUP v3.1 DF Compatible\Model | << Save flat file with this name (may |
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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.xIs 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:


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Source of standard schedule of rates:
Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_ 2008.xIs>
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 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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/ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the followins
/ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the followins

| Components of Population Change |  |  |  | Chelt, 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 | 1,963 | 1,973 | 1,962 | 1,977 | 1,997 | 2,017 | 2,032 | 2,042 | 2,053 | 2,060 | 2,063 | 2,062 | 2,059 | 2,056 | 2,053 | 2,051 | 2,048 | 2,047 | 2,046 | 2,046 |
| Female | 1,870 | 1,879 | 1,869 | 1,883 | 1,902 | 1,921 | 1,935 | 1,945 | 1,956 | 1,962 | 1,965 | 1,964 | 1,961 | 1,958 | 1,956 | 1,953 | 1,951 | 1,949 | 1,948 | 1,948 |
| All Births | 3,833 | 3,853 | 3,831 | 3,860 | 3,899 | 3,939 | 3,967 | 3,988 | 4,009 | 4,022 | 4,028 | 4,026 | 4,021 | 4,015 | 4,009 | 4,004 | 3,999 | 3,996 | 3,994 | 3,994 |
| TFR | 1.91 | 1.90 | 1.88 | 1.87 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 | 1.88 |
| Births input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,313 | 1,295 | 1,311 | 1,313 | 1,315 | 1,322 | 1,329 | 1,341 | 1,352 | 1,364 | 1,378 | 1,395 | 1,417 | 1,439 | 1,460 | 1,485 | 1,509 | 1,536 | 1,563 | 1,590 |
| Female | 1,461 | 1,450 | 1,448 | 1,440 | 1,434 | 1,424 | 1,418 | 1,416 | 1,414 | 1,415 | 1,418 | 1,423 | 1,432 | 1,441 | 1,450 | 1,466 | 1,484 | 1,503 | 1,526 | 1,553 |
| All deaths | 2,774 | 2,745 | 2,759 | 2,753 | 2,749 | 2,746 | 2,747 | 2,757 | 2,766 | 2,779 | 2,796 | 2,818 | 2,848 | 2,879 | 2,910 | 2,950 | 2,993 | 3,039 | 3,088 | 3,143 |
| SMR: males | 87.6 | 84.0 | 82.6 | 80.4 | 78.3 | 76.4 | 74.6 | 73.2 | 71.6 | 70.1 | 68.7 | 67.4 | 66.4 | 65.4 | 64.3 | 63.4 | 62.5 | 61.8 | 61.1 | 60.6 |
| SMR: females | 89.3 | 86.8 | 85.2 | 83.1 | 81.3 | 79.3 | 77.5 | 75.8 | 74.1 | 72.5 | 70.9 | 69.4 | 68.1 | 66.7 | 65.4 | 64.2 | 63.1 | 62.1 | 61.3 | 60.6 |
| SMR: male \& female | 88.5 | 85.5 | 83.9 | 81.8 | 79.8 | 77.9 | 76.1 | 74.5 | 72.9 | 71.3 | 69.8 | 68.4 | 67.2 | 66.0 | 64.8 | 63.8 | 62.8 | 62.0 | 61.2 | 60.6 |
| Expectation of life | 82.1 | 82.3 | 82.5 | 82.6 | 82.8 | 83.0 | 83.1 | 83.2 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 | 84.2 | 84.3 | 84.3 | 84.4 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 9,247 | 9,309 | 9,338 | 9,384 | 9,418 | 9,447 | 9,481 | 9,505 | 9,506 | 9,512 | 9,545 | 9,579 | 9,608 | 9,655 | 9,700 | 9,769 | 9,806 | 9,853 | 9,889 | 9,936 |
| Female | 9,801 | 9,854 | 9,883 | 9,909 | 9,939 | 9,955 | 9,964 | 9,977 | 9,967 | 9,962 | 9,976 | 10,008 | 10,050 | 10,089 | 10,158 | 10,229 | 10,293 | 10,346 | 10,390 | 10,456 |
| All | 19,047 | 19,163 | 19,221 | 19,293 | 19,358 | 19,403 | 19,446 | 19,482 | 19,473 | 19,475 | 19,521 | 19,587 | 19,658 | 19,744 | 19,857 | 19,998 | 20,099 | 20,199 | 20,279 | 20,392 |
| SMigR: males | 54.1 | 54.1 | 53.9 | 53.8 | 53.7 | 53.6 | 53.6 | 53.6 | 53.4 | 53.4 | 53.4 | 53.5 | 53.5 | 53.5 | 53.5 | 53.6 | 53.5 | 53.4 | 53.3 | 53.3 |
| SMigR: females | 57.5 | 57.5 | 57.5 | 57.5 | 57.5 | 57.5 | 57.5 | 57.4 | 57.3 | 57.3 | 57.3 | 57.3 | 57.4 | 57.3 | 57.4 | 57.3 | 57.3 | 57.2 | 57.1 | 57.1 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 8,683 | 8,729 | 8,806 | 8,841 | 8,886 | 8,936 | 8,963 | 8,988 | 9,019 | 9,030 | 9,049 | 9,084 | 9,114 | 9,142 | 9,203 | 9,244 | 9,297 | 9,332 | 9,378 | 9,412 |
| Female | 9,480 | 9,532 | 9,560 | 9,578 | 9,594 | 9,598 | 9,618 | 9,616 | 9,625 | 9,613 | 9,627 | 9,646 | 9,647 | 9,682 | 9,748 | 9,836 | 9,882 | 9,939 | 10,007 | 10,042 |
| All | 18,163 | 18,261 | 18,367 | 18,419 | 18,479 | 18,534 | 18,581 | 18,604 | 18,644 | 18,643 | 18,676 | 18,730 | 18,762 | 18,823 | 18,951 | 19,081 | 19,178 | 19,271 | 19,386 | 19,454 |
| SMigR: males | 50.8 | 50.7 | 50.8 | 50.7 | 50.7 | 50.7 | 50.7 | 50.6 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.6 | 50.6 | 50.5 |
| SMigR: females | 55.6 | 55.6 | 55.6 | 55.6 | 55.5 | 55.5 | 55.5 | 55.4 | 55.4 | 55.3 | 55.2 | 55.2 | 55.1 | 55.0 | 55.0 | 55.1 | 55.0 | 55.0 | 55.0 | 54.9 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,788 | 1,791 | 1,791 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 | 1,788 |
| Female | 1,672 | 1,675 | 1,675 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 | 1,673 |
| All | 3,460 | 3,466 | 3,466 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 | 3,461 |
| SMigR: males | 149.3 | 148.1 | 146.8 | 145.7 | 145.0 | 144.5 | 144.2 | 144.0 | 144.0 | 144.1 | 144.2 | 144.3 | 144.4 | 144.4 | 144.1 | 143.7 | 143.0 | 142.3 | 141.5 | 140.7 |
| SMigR: females | 145.7 | 144.7 | 143.8 | 143.0 | 142.6 | 142.4 | 142.3 | 142.3 | 142.3 | 142.5 | 142.7 | 142.9 | 143.0 | 143.1 | 142.9 | 142.4 | 141.8 | 141.1 | 140.4 | 139.6 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,639 | 1,652 | 1,667 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 | 1,683 |
| Female | 1,409 | 1,421 | 1,435 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 | 1,450 |
| All | 3,048 | 3,073 | 3,102 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 | 3,133 |


| 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 | 0 |
| 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 | 0 |
| 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 | (0) |
| 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 | (1) |
| 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 | $\begin{aligned} & 0^{0.679} \\ & 0 \end{aligned}$ |
| 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 |  |
| 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 |  |






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| Components of Population Change |  |  |  | Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1st .... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births |  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 422 | 420 | 420 | 422 | 426 | 430 | 433 | 436 | 438 | 440 | 441 | 441 | 441 | 440 | 439 | 437 | 436 | 434 | 433 | 433 |
| Female | 402 | 400 | 400 | 402 | 406 | 409 | 413 | 415 | 418 | 419 | 420 | 420 | 420 | 419 | 418 | 416 | 415 | 414 | 413 | 412 |
| All Biths | 824 | 821 | 820 | 823 | 831 | 839 | 846 | 851 | 856 | 860 | 861 | 862 | 861 | 859 | 856 | 854 | 851 | 848 | 846 | 844 |
| TFR | 1.92 | 1.91 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 |
| Births input | * | * | * |  |  | * |  |  | * | * | * |  |  |  | * |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 365 | 364 | 367 | 371 | 373 | 377 | 382 | 387 | 393 | 397 | 404 | 411 | 418 | 426 | 434 | 443 | 452 | 462 | 469 | 477 |
| Female | 398 | 397 | 402 | 402 | 400 | 400 | 401 | 403 | 404 | 405 | 409 | 411 | 416 | 420 | 424 | 430 | 438 | 444 | 452 | 461 |
| All deaths | 762 | 761 | 769 | 772 | 773 | 777 | 783 | 790 | 797 | 803 | 812 | 822 | 834 | 846 | 858 | 873 | 890 | 906 | 921 | 938 |
| SMR: males | 83.3 | 80.6 | 78.6 | 76.7 | 74.5 | 72.9 | 71.4 | 70.0 | 68.6 | 67.0 | 65.7 | 64.6 | 63.6 | 62.6 | 61.6 | 61.0 | 60.3 | 59.7 | 59.0 | 58.4 |
| SMR: females | 84.8 | 82.5 | 81.5 | 79.6 | 77.5 | 75.6 | 74.1 | 72.5 | 70.8 | 69.3 | 67.8 | 66.3 | 65.2 | 63.8 | 62.5 | 61.4 | 60.4 | 59.4 | 58.6 | 58.0 |
| SMR: male \& female | 84.1 | 81.6 | 80.1 | 78.2 | 76.0 | 74.3 | 72.7 | 71.2 | 69.7 | 68.1 | 66.8 | 65.4 | 64.4 | 63.2 | 62.0 | 61.2 | 60.4 | 59.6 | 58.8 | 58.2 |
| Expectation of life | 82.4 | 82.6 | 82.8 | 82.9 | 83.1 | 83.2 | 83.4 | 83.5 | 83.6 | 83.7 | 83.9 | 84.0 | 84.1 | 84.2 | 84.3 | 84.4 | 84.5 | 84.5 | 84.6 | 84.7 |
| Deaths input |  |  | * |  |  | * |  | * | * |  | * | * |  |  |  | * | * |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,445 | 2,476 | 2,486 | 2,508 | 2,517 | 2,537 | 2,551 | 2,568 | 2,580 | 2,590 | 2,603 | 2,610 | 2,624 | 2,634 | 2,643 | 2,663 | 2,668 | 2,679 | 2,693 | 2,705 |
| Female | 2,667 | 2,689 | 2,699 | 2,715 | 2,725 | 2,737 | 2,745 | 2,757 | 2,765 | 2,774 | 2,778 | 2,790 | 2,794 | 2,805 | 2,822 | 2,833 | 2,850 | 2,868 | 2,880 | 2,900 |
| All | 5,111 | 5,166 | 5,185 | 5,223 | 5,242 | 5,274 | 5,296 | 5,326 | 5,345 | 5,364 | 5,381 | 5,400 | 5,418 | 5,439 | 5,465 | 5,496 | 5,518 | 5,547 | 5,573 | 5,605 |
| SMigR: males | 63.9 | 64.6 | 64.6 | 64.9 | 64.9 | 65.1 | 65.2 | 65.4 | 65.5 | 65.6 | 65.7 | 65.6 | 65.6 | 65.6 | 65.6 | 65.7 | 65.5 | 65.5 | 65.5 | 65.5 |
| SMigR: females | 69.1 | 69.6 | 69.6 | 69.9 | 70.0 | 70.2 | 70.1 | 70.3 | 70.4 | 70.4 | 70.3 | 70.3 | 70.2 | 70.3 | 70.2 | 70.0 | 70.1 | 70.2 | 70.1 | 70.2 |
| Migrants input |  |  | * | * |  |  | * | * |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,239 | 2,225 | 2,248 | 2,252 | 2,268 | 2,281 | 2,288 | 2,300 | 2,311 | 2,316 | 2,321 | 2,344 | 2,352 | 2,362 | 2,378 | 2,381 | 2,399 | 2,409 | 2.414 | 2,422 |
| Female | 2,453 | 2,452 | 2,466 | 2,471 | 2,477 | 2,480 | 2,496 | 2,495 | 2,501 | 2,504 | 2,515 | 2,526 | 2,535 | 2,541 | 2,556 | 2,582 | 2,588 | 2,595 | 2,610 | 2,618 |
| All | 4,692 | 4,677 | 4,714 | 4,723 | 4.746 | 4,761 | 4,784 | 4,794 | 4,813 | 4,820 | 4,836 | 4,870 | 4,887 | 4,903 | 4,934 | 4,963 | 4,987 | 5,003 | 5,024 | 5,040 |
| SMigR: males | 58.6 | 58.1 | 58.4 | 58.3 | 58.5 | 58.5 | 58.5 | 58.6 | 58.7 | 58.6 | 58.6 | 58.9 | 58.8 | 58.9 | 59.0 | 58.8 | 58.9 | 58.8 | 58.7 | 58.6 |
| SMigR: females | 63.6 | 63.4 | 63.6 | 63.6 | 63.6 | 63.6 | 63.8 | 63.6 | 63.7 | ${ }^{63.6}$ | 63.7 | 63.7 | 63.7 | 63.6 | 63.6 | 63.8 | 63.7 | 63.5 | 63.5 | 63.4 |
| Migrants input |  | * | * | * | * | * | * | * | * | * | * | * | * |  |  | * | * |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 206 | 207 | 207 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 |
| Female | 196 | 197 | 197 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 | 196 |
| All | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 | 403 |
| SMigR: males | 80.1 | 80.0 | 79.7 | 79.3 | 79.2 | 79.1 | 79.0 | 78.9 | 78.9 | 78.8 | 78.9 | 78.8 | 78.8 | 78.8 | 78.7 | 78.5 | 78.3 | 78.0 | 77.7 | 77.4 |
| SMigR: females | 76.9 | 76.8 | 76.5 | 76.3 | 76.2 | 76.2 | 76.1 | 76.2 | 76.2 | 76.3 | 76.3 | 76.4 | 76.5 | 76.6 | 76.6 | 76.4 | 76.3 | 76.1 | 75.8 | 75.5 |
| Migrants input |  | * | * | * | * | * | * | * |  |  | * | * | * |  |  | * | * |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 184 | 186 | 187 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 |
| Female | 159 | 160 | 162 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| All | 343 | 346 | 349 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 | 353 |
| SMigR: males | 71.6 | 71.9 | ${ }^{72.3}$ | 72.8 | 72.7 | 72.6 | 72.5 | 72.4 | 72.4 | ${ }^{72.3}$ | ${ }^{72.4}$ | ${ }^{72.3}$ | ${ }^{72.3}$ | 72.3 | ${ }^{72.2}$ | 72.1 | 71.8 | 71.6 | 71.3 | 71.0 |
| SMigR: females | 62.4 | 62.6 | 63.0 | 63.5 | 63.4 | 63.4 | 63.4 | 63.4 | 63.5 | 63.5 | 63.6 | 63.6 | 63.7 | 63.8 | 63.8 | 63.6 | 63.5 | 63.4 | 63.1 | 62.9 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |



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This file was produced using the scenario file G:IHEaDROOM11. POPGROUP v3.1 DF


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:
 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.xIs 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:


## Page 254

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 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.

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

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| 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 | 8,992 | 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 | 2,776 | 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 | 4.886 | 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 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\bigcirc$ |  |
| Population impact of constraint |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Number of persons | +38 | $-9$ | $-9$ | $-9$ | $-9$ | -9 | $-8$ | $-8$ | $-7$ | $-7$ | $-7$ | -6 | -6 | -6 | -6 | -6 | -6 | -6 | $-7$ | $-7$ | -6 | -45 | 0 |
| Households 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Q |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ( |
| Change over previous year | +518 | +454 | +421 | +390 | +376 | +378 | +416 | +408 | +410 | +399 | +391 | +350 | +371 | +377 | +371 | +385 | +400 | +435 | $\stackrel{+426}{ }$ | ${ }_{+413}$ | +390 | -128 | $N$ |
| 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 | $G$ |
| 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 | -134 | $\checkmark$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |  |
| Labour Force 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 | -262 |  |
| 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 | 1,506 |  |
| 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 |  |  |



| 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/forecastsPopulation 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 | 0 |
| 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 | ( ${ }^{653}$ |
| Population impact of co |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $N$ |
| Number of persons | +116 | $-7$ | -8 | $-7$ | -9 | -8 | -8 | $-7$ | -6 | $-7$ | -5 | -5 | -5 | -5 | -5 | -6 | -6 | $-7$ | -7 | $-7$ | -7 | 0 |
| 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 Brafford 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 |  |



| 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 | timate | /forec | asts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Popu | at mid-y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 | ${ }_{7} 7.329$ | 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 | 13,557 | 134,445 | 135,302 | 136,122 | 136,917 | 137,695 | 138,460 | 139,208 | 19,692 |  |
| Population impact of constraint |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Number of persons | +45 | $-1$ | $-2$ | -1 | -2 | -2 | -2 | $-2$ | -1 | $-2$ | -1 | $-1$ | -1 | $-1$ | -2 | $-2$ | $-3$ | $-3$ | $-3$ | $-3$ | $-3$ |  | (1) |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (1) |
| 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 |  | N |
| Number of supply units | 53,774 | 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 | 0 |
| 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 | 68,995 | 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 | 66,001 | 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 foreca | duced on | 3/05/2012 | using POP | GROUP | oftware de | veloped by | Bradford | Council, the | University | of Manch | ster and | ndelin Ass | ociates |  |  |  |  |  |  |  |  |  |  |
|  | 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 |  |  |


| Components of Population Change |  |  |  |  |  | Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ing July | st .... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 471 | 475 | 476 | 474 | 475 | 474 | 472 | 471 | 472 | 472 | 471 | 469 | 467 | 465 | 461 | 459 | 457 | 456 | 456 | 455 |
| Female | 449 | 453 | 453 | 451 | 452 | 451 | 450 | 449 | 449 | 449 | 448 | 447 | 445 | 442 | 439 | 437 | 435 | 434 | 434 | 434 |
| All Biths | 920 | 928 | 929 | 925 | 927 | 926 | 922 | 920 | 921 | 921 | 919 | 916 | 912 | 907 | 901 | 896 | 892 | 890 | 889 | 889 |
| 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 | 385 | 391 | 392 | 393 | 397 | 402 | 407 | 412 | 417 | 423 | 430 | 437 | 444 | 451 | 459 | 468 | 476 | 483 | 490 |
| Female | 400 | 399 | 402 | 408 | 405 | 405 | 406 | 408 | 410 | 411 | 414 | 417 | 421 | 424 | 429 | 434 | 440 | 446 | 452 | 459 |
| All deaths | 782 | 784 | 793 | 800 | 797 | 802 | 808 | 815 | 822 | 828 | 837 | 847 | 858 | 868 | 880 | 893 | 908 | 922 | 935 | 950 |
| SMR: males | 90.9 | 88.9 | 87.6 | 85.3 | 82.7 | 81.2 | 79.6 | 78.1 | 76.6 | 75.0 | 73.6 | 72.5 | 71.4 | 70.4 | 69.2 | 68.4 | 67.7 | 66.9 | 66.1 | 65.3 |
| SMR: females | 88.9 | 86.1 | 84.8 | 83.9 | 81.3 | 79.6 | 78.0 | 76.5 | 75.0 | 73.3 | 71.9 | 70.4 | 69.1 | 67.7 | ${ }_{6} 6.6$ | 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 | 83.2 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 |
| Deaths input |  |  | * |  |  |  |  | * |  |  |  | * | * |  |  | * |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,416 | 2,436 | 2,455 | 2,471 | 2,485 | 2,498 | 2,508 | 2.519 | 2,528 | 2.536 | 2,542 | 2,548 | 2,555 | 2,562 | 2,571 | 2,580 | 2,589 | 2,599 | 2,610 | 2,620 |
| Female | 2,705 | 2,722 | 2,738 | 2,750 | 2,762 | 2,770 | 2,777 | 2,783 | 2,788 | 2,791 | 2,794 | 2,998 | 2,803 | 2,810 | 2,821 | 2,833 | 2,847 | 2,862 | 2,877 | 2,892 |
| All | 5,121 | 5,158 | 5,193 | 5,221 | 5,247 | 5,268 | 5,285 | 5,302 | 5,315 | 5,326 | 5,337 | 5,346 | 5,358 | 5,373 | 5,393 | 5,413 | 5,436 | 5,461 | 5,487 | 5,512 |
| SMigR: males | 61.4 | 61.6 | 61.7 | 61.7 | 61.7 | 61.8 | 61.8 | 61.8 | 61.8 | 61.8 | 61.9 | 61.7 | 61.7 | 61.7 | 61.6 | 61.5 | 61.5 | 61.4 | 61.3 | 61.2 |
| SMigR: females | 67.9 | 68.0 | 67.9 | 67.9 | 67.8 | 67.7 | 67.5 | 67.5 | 67.4 | 67.2 | 67.1 | 66.9 | 66.8 | 66.7 | 6.6 | 66.4 | 66.3 | 66.2 | 66.1 | 66.0 |
| Migrants input |  |  |  | * |  |  | * | * |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,170 | 2,174 | 2,191 | 2,203 | 2,219 | 2,238 | 2,247 | 2,257 | 2,265 | 2,269 | 2,272 | 2,291 | 2,302 | 2,312 | 2,323 | 2,336 | 2,348 | 2,355 | 2,367 | 2,382 |
| Female | 2,405 | 2,420 | 2,439 | 2,455 | 2,467 | 2,480 | 2,496 | 2,500 | 2,508 | 2,513 | 2,524 | 2,539 | 2,544 | 2,551 | 2,568 | 2,593 | 2,606 | 2,622 | 2,638 | 2,657 |
| All | 4,576 | 4,594 | 4,629 | 4,658 | 4,687 | 4,718 | 4,743 | 4,756 | 4,773 | 4,782 | 4,796 | 4,830 | 4,845 | 4,862 | 4,891 | 4,929 | 4,955 | 4,978 | 5,005 | 5,039 |
| SMigR: males | 55.2 | 55.0 | 55.0 | 55.1 | 55.2 | 55.3 | 55.3 | 55.3 | 55.4 | 55.3 | 55.3 | 55.5 | 55.6 | 55.6 | 55.7 | 55.7 | 55.7 | 55.6 | 55.6 | 55.6 |
| SMigR: females | 60.4 | 60.4 | 60.5 | 60.6 | 60.6 | 60.6 | 60.7 | 60.6 | 60.6 | 60.5 | 60.6 | 60.7 | 60.6 | 60.6 | 60.6 | 60.8 | 60.7 | 60.7 | 60.6 | 60.6 |
| Migrants input |  |  | * | * | * | * | * | * | * | * | * | * | * |  |  | * | * |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 225 | 227 | 228 | 229 | 227 | 228 | 229 | 229 | 229 | 229 | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 231 | 231 | 231 |
| Female | 196 | 201 | 201 | 200 | 200 | 201 | 201 | 201 | 201 | 202 | 202 | 202 | 202 | 201 | 202 | 201 | 202 | 202 | 201 | 201 |
| All | 421 | 428 | 428 | 429 | 427 | 429 | 430 | 430 | 431 | 431 | 431 | 432 | 432 | 431 | 432 | 431 | 432 | 432 | 432 | 433 |
| SMigR: males | 84.6 | 84.9 | 84.6 | 84.8 | 83.8 | 83.8 | 84.0 | 84.2 | 84.2 | 84.2 | 84.3 | 84.5 | 84.5 | 84.5 | ${ }^{84.6}$ | 84.4 | 84.2 | 84.1 | 83.7 | 83.4 |
| SMigR: females | 74.5 | 75.7 | 75.0 | 74.3 | 74.1 | 74.2 | 74.0 | 74.0 | 74.1 | 74.2 | 74.3 | 74.3 | 74.3 | 74.2 | ${ }^{74.3}$ | 73.9 | 74.0 | 73.7 | 73.2 | 73.0 |
| Migrants input |  |  | * | * |  |  | * | * | * |  | * | * | * |  | * | * | * |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 174 | 178 | 180 | 184 | 185 | 189 | 190 | 190 | 190 | 190 | 190 | 191 | 191 | 191 | 191 | 191 | 191 | 192 | 192 | 192 |
| Female | 141 | 148 | 149 | 150 | 153 | 156 | 157 | 157 | 157 | 157 | 158 | 157 | 157 | 157 | 157 | 157 | 157 | 157 | 157 | 157 |
| All | 315 | 326 | 330 | 334 | 338 | 345 | 346 | 347 | 347 | 347 | 348 | 348 | 348 | 348 | 348 | 348 | 348 | 349 | 348 | 349 |
| SMigR: males | 65.5 | 66.6 | 67.0 | 68.0 | 68.3 | 69.4 | 69.7 | 69.8 | 69.8 | 69.8 | 69.9 | 70.1 | 70.1 | 70.1 | 70.2 | 70.1 | 69.9 | 69.9 | 69.6 | 69.3 |
| SMigR: females | 53.8 | 55.8 | 55.8 | 55.8 | 56.6 | 57.8 | 57.7 | 57.6 | 57.8 | 57.8 | 57.9 | 57.9 | 57.9 | 57.8 | 57.9 | 57.6 | 57.7 | 57.5 | 57.0 | 56.9 |
| Migrants input | * |  | * | * | * | * | * | * | * | * | * | * | * | . | * | * | * | * |  | * |


| 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 |  | +12,248 |  |
| Net change | +789 | +810 | +799 | +782 | +779 | +757 | +738 | +734 | +725 | +721 | +707 | +670 | +651 | +633 | +606 | +570 | +549 | +536 | +520 | +496 |  |  |  |
| 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 | 3,994 | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Number of persons | +32 | +3 | +3 | +3 | +3 | +2 | +2 | +2 | +2 | +2 | +3 | +3 | +3 | +3 | +3 | +3 | +2 | +2 | +2 | +2 | +2 |  | 00 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (1) |
| Number of Households | 36,052 | 36,496 | 36,229 | 37,369 | 37,802 | 38,251 | 38,683 | ${ }^{39,114}$ | 39,529 | 39,935 | 40,354 | 40,739 |  | ${ }^{41,522}$ | ${ }^{41,901}$ | 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 |  | N |
| 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 | 42,996 | 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 |  | $\omega$ |
| 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 | 35,394 | 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 | 2,032 |  |
| 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 |  |  |
| 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:IHEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model RunsICGT\Cheltenham, Gloucester, Tewkesbury JCS_inplscenario_ONS2010
baseline.xls
Tick to save as new flat 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.xIs 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.

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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.
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 Cons2011-35.xIs 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 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.

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

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Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 83 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 85 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 88 in flow 3 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 76 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 77 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 78 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 81 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 82 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 85 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 87 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 89 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 90 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 19 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 81 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 85 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 87 in flow 4 - adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 88 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 89 in flow 4 -adjusted Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 90 in flow 4 - adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 78 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 80 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 81 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 85 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 86 in flow 4 - adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 76 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 79 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 80 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 83 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 85 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 86 in flow 4 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 88 in flow 4 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 7 in flow 4 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 41 in flow 4 - adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 50 in flow 4 - 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Constraint caused negative migrant flow for group Gloucester in year 2034, Female age 77 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2034, Female age 84 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2034, Female age 89 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2034, Female age 90 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2034, Male age 42 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2034, Male age 48 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2034, Male age 56 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2034, Male age 74 in flow 3 - adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2034, Male age 75 in flow 3 - adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2034, Male age 77 in flow 3 - 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Constraint caused negative migrant flow for group Gloucester in year 2035, Male age 89 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Male age 90 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 75 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 76 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 77 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 78 in flow 3 -adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 84 in flow 3 - adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 89 in flow 3 - adjusted Constraint caused negative migrant flow for group Gloucester in year 2035, Female age 90 in flow 3 -adjusted Constraint caused negative migrant flow for group Tewkesbury in year 2035, Male age 42 in flow 3 - 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/ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the followins

| Components of Population Change |  |  |  |  |  | Chet, Glouc, Tewkes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 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 |
| All Births | 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 |
| All deaths | 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 |
| 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 | 82.9 | 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 | 9,194 | 9,230 | 9,256 | 9,268 | 9,275 | 9,274 | 9,273 | 9,287 | 9,307 | 9,326 | 9,353 | 9,395 | 9,441 | 9,481 | 9,527 | 9,578 | 9,635 |
| Female | 9,852 | 9,893 | 9,929 | 9,958 | 9,991 | 10,004 | 10,005 | 10,002 | 9,986 | 9,975 | 9,983 | 10,007 | 10,030 | 10,061 | 10,113 | 10,177 | 10,231 | 10,296 | 10,368 | 10,441 |
| All | 18,902 | 18,996 | 19,082 | 19,152 | 19,221 | 19,260 | 19,273 | 19,277 | 19,261 | 19,249 | 19,271 | 19,314 | 19,357 | 19,414 | 19,509 | 19,618 | 19,712 | 19,822 | 19,946 | 20,076 |
| SMigR: males | 53.6 | 53.5 | 53.3 | 53.2 | 53.2 | 53.1 | 53.0 | 52.9 | 52.9 | 52.8 | 52.8 | 52.9 | 52.9 | 52.9 | 52.9 | 52.9 | 52.9 | 52.9 | 52.8 | 52.8 |
| SMigR: females | 58.0 | 57.7 | 57.5 | 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 | 8,519 | 8,578 | 8,656 | 8,709 | 8,745 | 8,786 | 8,807 | 8,817 | 8,827 | 8,823 | 8,834 | 8,857 | 8,870 | 8,891 | 8,932 | 8,975 | 9,018 | 9,056 | 9,105 | 9,164 |
| Female | 9,346 | 9,438 | 9,518 | 9,555 | 9,594 | 9,599 | 9,602 | 9,602 | 9,596 | 9,570 | 9,581 | 9,589 | 9,592 | 9,609 | 9,667 | 9,745 | 9,800 | 9,873 | 9,945 | 10,021 |
| All | 17,864 | 18,015 | 18,175 | 18,264 | 18,339 | 18,385 | 18,408 | 18,418 | 18,424 | 18,393 | 18,415 | 18,445 | 18,461 | 18,500 | 18,599 | 18,720 | 18,817 | 18,929 | 19,050 | 19,185 |
| 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 | 55.1 | 55.2 | 55.1 | 55.1 | 55.1 | 55.0 | 55.0 | 54.9 | 54.8 | 54.8 | 54.7 | 54.6 | 54.5 | 54.6 | 54.6 | 54.5 | 54.5 | 54.5 | 54.5 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,554 | 1,558 | 1,561 | 1,564 | 1,564 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 | 1,563 |
| Female | 1,349 | 1,353 | 1,356 | 1,359 | 1,359 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 | 1,358 |
| All | 2,903 | 2,911 | 2,917 | 2,923 | 2,923 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 | 2,920 |
| SMigR: males | 131.8 | 131.0 | 130.2 | 129.5 | 129.0 | 128.4 | 128.3 | 128.2 | 128.4 | 128.6 | 128.9 | 129.2 | 129.4 | 129.5 | 129.4 | 129.2 | 128.7 | 128.1 | 127.4 | 126.5 |
| SMigR: females | 118.5 | 117.6 | 116.9 | 116.4 | 116.0 | 115.6 | 115.6 | 115.6 | 115.7 | 115.9 | 116.2 | 116.4 | 116.6 | 116.7 | 116.6 | 116.3 | 115.8 | 115.3 | 114.6 | 113.8 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,456 | 1,475 | 1,495 | 1,515 | 1,540 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 | 1,565 |
| Female | 1,168 | 1,186 | 1,205 | 1,223 | 1,245 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 | 1,267 |
| All | 2,623 | 2,661 | 2,700 | 2,738 | 2,786 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 | 2,832 |



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| $\stackrel{\text { ® }}{\text { ¢ }}$ |  |  |  |  |  |  |
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| No |  |  |  |  |  |  |
|  |  |  |  |  |  |  |




| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Number of persons | +32 | +3 | +3 | +3 | +3 | +2 | +2 | +2 | +2 | +2 | +3 | +3 | +3 | +3 | +3 | +3 | +2 | +2 | +2 | +2 | +2 |  | 010 |
| 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 |  | N |
| 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 | 42,996 | 43,086 | 43,478 | 43,862 | 44,220 | 44,599 | 44,954 | 45,297 | 8,226 | 0 |
| Change over previous year | ${ }^{+458}$ | ${ }^{+457}$ | $+445$ | +452 | ${ }^{+445}$ | ${ }^{+462}$ | ${ }^{+444}$ | $+444$ | ${ }^{+427}$ | $+417$ | ${ }^{+431}$ | ${ }^{+396}$ | $+410$ | +395 | +390 | +392 | +384 | ${ }^{+358}$ | +378 | ${ }^{+355}$ | ${ }^{+344}$ |  | 6 |
| 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 |  |  |

## Page 300

This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
CompatiblelModel RunslCGT\Cheltenham, Gloucester, Tewkesbury JCS_inplscenario_ONS2010
baseline LOW UNEMP.xls
Tick to save as new flat file

| 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:IHEaDROOM11. POPGROUP v3.1 DF <br> CompatiblelModel RunsICGTICheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_ONS2010 baseline 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.xIs 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.

## Page 301

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.
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 Cons2011-35.xIs 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 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.

Page 302
/ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the followins
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Summary of Population estimates/forecasts
Summary of population change
Natural change
Net migration
Net migration
Net change
Migration - Net Flows
SMigR: females
Migrants input

| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +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 |











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NATURAL CHANGE


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Components of Population Change
Year beginning July 1
2011
he UK
Births
Male
Female
All Births
TFR
Births input

Deaths
Male
Female
All deaths
SMR: males
SMR: female
SMR: male \&
Expectation
Deaths input
In-migra
Male
Female
SMigR: males
SMigR: females
Migrants input
SMRR: male \& female
Expectation of life
Deaths input





Components of Population Change
๙ัㅇㅇㅇ
$\begin{array}{lr}\text { Al/ Births } & 2.31 \\ \text { TFR } & * \\ \text { Births input } & \\ \text { Deaths } & 491 \\ \text { Male } & 512 \\ \text { Female } & 1,002 \\ \text { All deaths } & 101.1 \\ \text { SMR: males } & 103.1 \\ \text { SMR: females } & 102.1 \\ \text { SMR: male \& female } & 80.7 \\ \text { Expectation of life } & *\end{array}$
In-migration from the UK
Male
Female
All
SMigR
SMigR
Migran
Out-migration to the UK
Male
Female
All
SMigR: males
SMigR: females
In-migration from Overseas
Male
Female
SMigR: males
SMigR: females

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In－migration from the UK
Male
Female
All
Births
Male
Female
All Births
TFR
Births input

Deaths
Male
Female
All deaths
SMR：males
SMR：females
SMR：male \＆
Expectation o
Deaths input
Female
All
SMigR：
SMigR：
SMigR：males
SMigR：females
Migrants input
Out－migration to the UK
Male
Female
All
SMigR：males
SMigR：females
Migrants input
In－migration from Overseas
Male
Female
All
SMigR：males
SMigR：females
Migrants input

[^16]Tewkesbury


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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
CompatiblelModel Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury
JCS_inplscenario_ONS2010 natural change.xls
Tick to save as new flat file

| Produce flat file |  | << Append to (blank if not to be appended) |
| :---: | :---: | :---: |
| Clicking the button will copy <br> all data from this |  |  |
| components file onto a single sheet in another workbook (for pivots, etc) | G:IHEaDROOM\1. POPGROUP v3.1 DF <br> Compatible\Model RunslCardifflCGT\Cheltenham, Gloucester, Tewkesbury JCS_out\|FlatComp_ONS2010 natural change.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.
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 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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| 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 |  |
| 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 | +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 |  |
| Net migration | 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 |  |
| 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 |
| 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 |
| 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 |
| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
|  |  |  |  |  |  |  |  |  | -55 | -287 | -321 | -347 | -108 | -228 | -248 | -319 | -326 | -146 | -335 | -293 |  |




















Population Estimates and Forecasts
Components of Population Change

In-migration from the UK
Male
Male
Female
All
SMigR: males
SMigR: females
Migrants input
Out-migration to the UK
Male
Female
All
SMigR: males
SMigR: females
Migrants input
In-migration from Overseas
Male
Female
All
SMigR: males
SMigR: females
Migrants input

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| $\begin{aligned} & \text { 흥 } \\ & \stackrel{y}{0} \\ & 0 \\ & 0 \end{aligned}$ | $\stackrel{\text { ® }}{ }$ |  | 产 $\underbrace{\sim}_{\text {® }}$ |
| :---: | :---: | :---: | :---: |
|  | $\stackrel{\circ}{\stackrel{\circ}{N}}$ | 号馬高 |  |
|  | $\stackrel{5}{5}$ |  |  |




Components of Population Change
Year beginning July 1
2011

923
879
1,801
2.31
$*$

491
512
1,002
101.1
103.1
102.1
80.7
$\star$
In－migration from the UK
SMR：male \＆female
Expectation of life
Deaths input
In－migration from the UK
Male
Female
All
SMigR：males
SMigR：females
Migrants input
Out－migration to the UK
Male
Female
All
SMigR：males
SMigR：females
Migrants input
In－migration from Overseas
Male
Female
All
SMigR：males
SMigR：females
Migrants input

[^18]| Migration - Net Flows UK | 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 |  |  |
| Summary of population |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural change | +799 | +687 | +861 | 850 | +800 | +682 | +853 | 39 | 332 | +824 | +809 | +790 | +769 | +799 | +726 | +704 | +687 | 475 | +665 | +653 |  |  |
| Net migration | 0 | $\bigcirc$ | $\bigcirc$ |  | 0 | 0 | 0 | 0 |  | 0 |  | 0 | 0 | $\bigcirc$ | $\bigcirc$ |  |  | $\bigcirc$ |  | 0 |  |  |
| Net change | 99 | 867 | +861 | +850 | 880 | 862 | +853 | 39 | ${ }^{832}$ | 824 | 809 | +790 | +769 | +79 | +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 | 8,998 | 8.800 | ${ }^{8,934}$ | 9,044 | 9,165 | 9,211 | 9,195 | 9,171 | ${ }^{9,146}$ | 9,117 | 9,079 | 9.037 | ${ }^{8.993}$ | ${ }^{8.940}$ | ${ }^{8,888}$ | ${ }^{8.821}$ | ${ }^{8,770}$ | ${ }^{8.733}$ | ${ }^{8.712}$ | 8,709 |  |
| 5.10 | 8,933 | 8.008 | 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 | ${ }_{6}^{6,389}$ | ${ }_{6}^{6,389}$ | ${ }^{6.813}$ | 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 | 2.887 | 2.832 | 2.882 | ${ }^{2.937}$ | 3.030 | ${ }_{3}^{3,296}$ | 3.449 | ${ }_{3}^{3,437}$ | 3.445 | 3.506 | 3,634 | 3.885 | 3.881 |  |
| 18.59Female, 6 4Male | 70.525 | 70.545 | 70.573 | 70.591 | 70,682 | ${ }^{70,736}$ | 70,756 | ${ }^{70.20}$ | 70,366 | 70,038 | ${ }^{69,868}$ | ${ }^{69,672}$ | 69,432 | ${ }^{69,89}$ | ${ }^{68,799}$ | ${ }^{68,598}$ | 68,396 | 68,319 | 68,185 | 68,099 | 68,144 |  |
| 60165-74 | 12,876 | 13,048 | 13,330 | 13,668 | 13,948 | 14,207 | 14,442 | 14,653 | 14,953 | 15,293 | 15.594 | 15,900 | ${ }^{15,922}$ | 1,3,31 | 16,802 | 17,393 | 17,954 | 18,430 | ${ }^{18,892}$ | 19,349 | 19,710 |  |
| 75.84 | 6,248 | 6,288 | ${ }_{6,344}$ | 6,368 | ${ }_{6} 6.405$ | 6.425 | 6,568 | ${ }_{6}^{6,97}$ | 6,989 | 7,209 | 7.408 | ${ }^{\text {7,830 }}$ | 8,176 | 8,500 | 8.74 | 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 | 3.566 | 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 | ${ }^{124,044}$ | 1 124,97 | 125,76 | ${ }^{126,608}$ | ${ }^{127,433}$ | 128,242 | 129,032 | 129,801 | 130,51 | 131,277 | 13,981 | 132,69 | 133,34 | 134,009 | ${ }^{134,662}$ | 15.67 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Number of Housenolds | 51,247 | ${ }^{51,756}$ | ${ }^{52276}$ | ${ }^{52749}$ | 53,194 | ${ }^{53,666}$ | ${ }^{54,136}$ | ${ }^{54,595}$ | ${ }^{55,045}$ | ${ }^{55,452}$ | 55.872 | 56,269 | 56,678 | 57,106 | 57.59 | 57,08 | 58,303 | 58,764 | 59,200 | 59,631 | 60,044 | 8,97 |
| Change over revious year | +532 | +510 | +520 | +473 | +445 | +472 | +470 | +459 | +450 | +407 | +220 | +398 | +409 | +428 | +403 | +398 | +395 | +461 | +437 | ${ }^{4311}$ | +412 |  |
| Number of supply units | 53,105 | 55,634 | 54,172 | 54,662 | 55,123 | 55,612 | 56,099 | ${ }^{56,575}$ | 57,041 | 57,463 | 57,998 | 58,310 | 58,733 | 59.17 | ${ }^{59.595}$ | 60,008 | ${ }^{60,417}$ | ${ }^{60,895}$ | 61,348 | 61,794 | 62.21 | 9.116 |
| Change over revious year | +551 | +528 | +539 | +490 | ${ }_{+461}$ | +489 | +487 | +476 | +466 | +422 | ${ }_{\text {+435 }}$ | +412 | +223 | +444 | +418 | +413 | +409 | +478 | +453 | +447 | ${ }_{+427}$ |  |
| Labour ForceNumber oftabur Force |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Change over previous year | +228 | +103 | +54 | +42 | -18 |  | -73 | -18 |  | $-169$ | -175 | -167 | -31 | -115 | ${ }^{-126}$ | -119 | 44 | +45 |  | +34 | +77 |  |
| Number of supply units |  |  |  |  |  | 64,730 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 65,424 | 1.156 |
| Change overprevious year | $+847$ | +103 | +124 | +111 | +52 | +72 | +65 | +120 | +72 | ${ }^{33}$ | 40 | ${ }_{-32}$ | +105 | +20 |  | +15 | $+91$ | +183 | +5 | t35 | +79 |  |







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Tewkesbury




Components of Population Change

|  | $\begin{array}{c}\text { Year beginning July 1st } \\ 2011\end{array}$ |
| :--- | :---: |
| Births |  |
| Male | 471 |
| Female | 449 |
| All Births | 920 |
| TFR | 2.10 |
| Births input | \multirow{2}＊{} |
| Deaths |  |
| Male | 382 |
| Female | 400 |
| All deaths | 782 |
| SMR：males | 91.3 |
| SMR：females | 89.1 |
| SMR：male \＆female | 90.1 |
| Expectation of life | 81.7 |
| Deaths input | $*$ |

In－migration from the UK
Male
Female
Female
All
SMigR：
SMigR：
SMigR：males
SMigR：females
Migrants input
Out－migration to the UK
Male
Female
All
SMigR：males
SMigR：females
In－migration from Overseas
Male
Female
All
SMigR：males
SMigR：females
Migrants input

[^19]

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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury
JCS_inplscenario_ONS2010 natural change LOW UNEMP.xls
Tick to save as new flat file

| 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:IHEaDROOM11. POPGROUP v3.1 DF |  |
|  | Compatible\Model Runs\CardifflCGT\Cheltenham, | << Save flat file with this name (may |
|  | Gloucester, Tewkesbury JCS_out\|FlatComp_ONS2010 natural change LOW UNEMP.xls | 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 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.

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| Population Estim | nd F | eca |  |  |  |  | M | STIC | MIGR | TIO |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Components of Pop | Cha |  |  |  |  | het, | ouc, | ewke |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ing July |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 |
| All Births | 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 | 2.14 | 2.13 | 2.11 | 2.10 | 2.08 | 2.06 | 2.05 | 2.04 | 2.04 | 2.03 | 2.02 | 2.02 | 2.01 | 2.00 | 1.99 | 1.99 | 1.99 | 1.99 | 2.00 |
| 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 |
| All deaths | 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 | 88.6 | 87.0 | 84.4 | 82.5 | 80.6 | 79.0 | 77.5 | 75.8 | 74.3 | 72.9 | 71.7 | 70.4 | 69.2 | 68.1 | 67.1 | 66.2 | 65.2 | 64.4 |
| SMR: females | 93.7 | 91.2 | 89.3 | 87.6 | 85.8 | 83.8 | 82.1 | 80.4 | 78.8 | 77.2 | 75.7 | 74.3 | 73.0 | 71.6 | 70.3 | 69.2 | 68.1 | 67.0 | 66.0 | 65.2 |
| SMR: male \& female | 93.5 | 90.5 | 89.0 | 87.3 | 85.1 | 83.2 | 81.3 | 79.7 | 78.2 | 76.5 | 75.0 | 73.6 | 72.3 | 71.0 | 69.7 | 68.6 | 67.6 | 66.6 | 65.6 | 64.8 |
| 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 | 9,051 | 9,104 | 9,154 | 9,196 | 9,232 | 9,257 | 9,269 | 9,276 | 9,275 | 9,274 | 9,288 | 9,307 | 9,327 | 9,354 | 9,396 | 9,442 | 9,482 | 9,528 | 9,580 | 9,636 |
| Female | 9,855 | 9,896 | 9,932 | 9,961 | 9,993 | 10,007 | 10,008 | 10,004 | 9,989 | 9,977 | 9,986 | 10,009 | 10,032 | 10,063 | 10,116 | 10,179 | 10,233 | 10,298 | 10,370 | 10,444 |
| All | 18,905 | 19,000 | 19,086 | 19,156 | 19,225 | 19,264 | 19,277 | 19,280 | 19,264 | 19,251 | 19,273 | 19,316 | 19,359 | 19,417 | 19,512 | 19,621 | 19,715 | 19,826 | 19,949 | 20,080 |
| SMigR: males | 53.8 | 53.8 | 53.7 | 53.7 | 53.7 | 53.7 | 53.6 | 53.6 | 53.5 | 53.5 | 53.5 | 53.5 | 53.6 | 53.6 | 53.6 | 53.6 | 53.6 | 53.5 | 53.5 | 53.5 |
| SMigR: females | 58.2 | 58.1 | 58.0 | 58.0 | 58.1 | 58.2 | 58.2 | 58.2 | 58.1 | 58.1 | 58.1 | 58.2 | 58.3 | 58.3 | 58.3 | 58.3 | 58.2 | 58.2 | 58.2 | 58.2 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 8,518 | 8,577 | 8,656 | 8,708 | 8,743 | 8,784 | 8,805 | 8,816 | 8,826 | 8,822 | 8,833 | 8,856 | 8,869 | 8,890 | 8,931 | 8,974 | 9,016 | 9,055 | 9,104 | 9,163 |
| Female | 9,343 | 9,435 | 9,516 | 9,552 | 9,591 | 9,597 | 9,599 | 9,599 | 9,594 | 9,568 | 9,579 | 9,587 | 9,590 | 9,607 | 9,665 | 9,743 | 9,797 | 9,870 | 9,942 | 10,019 |
| All | 17,861 | 18,011 | 18,171 | 18,260 | 18,334 | 18,381 | 18,405 | 18,415 | 18,420 | 18,391 | 18,412 | 18,443 | 18,459 | 18,497 | 18,596 | 18,717 | 18,814 | 18,925 | 19,047 | 19,182 |
| SMigR: males | 50.6 | 50.7 | 50.8 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 51.0 | 51.0 | 50.9 | 50.9 | 50.9 | 50.8 |
| SMigR: females | 55.1 | 55.3 | 55.6 | 55.6 | 55.8 | 55.8 | 55.8 | 55.8 | 55.8 | 55.7 | 55.8 | 55.8 | 55.7 | 55.7 | 55.7 | 55.8 | 55.7 | 55.8 | 55.8 | 55.8 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| All | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SMigR: males |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMigR: females |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| All | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

SMigR：males
SMigR：females

## Summary of Population estimates／forecasts

## Summary of population change

Net migration



















$+1,045$
0

$+1,347$
$+1,45$
$+2,391$

Net change
Natural change
Net migration
Net change
2011
둥


| 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 163，52 | 164，674 |
| ＋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 |
| 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 |
| ＋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 |
| 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 | 172，886 | 172，724 | 172，743 | 172，865 | 173，187 | 173，438 | 173，738 | 174，090 |
| ＋973 | ＋665 | ＋542 | ＋426 | ＋406 | ＋412 | ＋149 | ＋275 | ＋189 | －64 | －85 | －129 | ＋176 | ＋43 | ＋38 | ＋19 | ＋122 | ＋321 | ＋251 | ＋301 | ＋352 |
| 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 |


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$2011 \quad 2012 \quad 2013$



| 7,930 | 7,830 | 7,745 |
| ---: | ---: | ---: |
| 184,366 | 184,759 | 185,293 |
| 189 |  |  |

$\begin{array}{rrr}184,366 & 184,759 & 185,293 \\ 37,550 & 38,666 & 39,571 \\ 18,691 & 18,774 & 19,196\end{array}$

| $8,6,699$ | 8,931 | 9,123 |
| ---: | ---: | ---: |
| 315,996 | 318,387 | 320,828 |





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




















| Components of Population Change |  |
| :---: | :---: |
|  | Year beginning July 1st |
|  | 2011 |
| Births |  |
| Male | 734 |
| Female | 699 |
| All Biths | 1,434 |
| TFR | 1.99 |
| Births input |  |
| Deaths |  |
| Male | 472 |
| Female | 552 |
| All deaths | 1,024 |
| SMR: males | 88.1 |
| SMR: females | 89.5 |
| SMR: male \& female | 88.9 |
| Expectation of life | 81.9 |
| Deaths input |  |
| In-migration from the UK |  |
| Male | 3,674 |
| Female | 4,104 |
| All | 7,778 |
| SMigR: males | 57.8 |
| SMigR: females | 63.8 |
| Migrants input |  |
| Out-migration to the UK |  |
| Male | 3,548 |
| Female | 4,044 |
| All | 7,592 |
| SMigR: males | 55.8 |
| SMigR: females | 62.9 |
| Migrants input |  |

[^20]| 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 |  |  |  |
| Summary of population |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 Pop | timate | /forec | asts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | at mid-y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 | ${ }_{6} 6.578$ | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | טి |
| 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 | (1) |
| 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 |  | N |
| 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 | 63,02 | 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 |  |  |











Components of Population Change
$\begin{array}{lr} & \text { Year beginning July } \\ \text { Births } & 2011\end{array}$
Births
Male
Female
All Births
TFR
Births inpu
Deaths




In-migration from Overseas
Male
Female
All
SMigR: males
SMigR: females
Migrants input
Out-migration to Overseas
Male
Female
SMigR: males
SMigR: females
Migrants input

| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 Popu | mate | /forec | asts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | at mid-y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 | 19,342 | 120,456 |  | 122,30 | 12,823 | 124,07 | 12,972 | 127,00 | 12,010 | 120,97 | 12, | -30,89 | -1,97 |  |  |  |  |  | -30,60 | -37,305 |  |  |  |
| 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 | (1) |
| 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 | N |
| 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 | 67,883 | 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 |  |  |


| Components of Population Change Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1 st . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 471 | 475 | 476 | 474 | 475 | 474 | 472 | 471 | 472 | 472 | 471 | 469 | 467 | 465 | 461 | 459 | 457 | 456 | 456 | 455 |
| Female | 449 | 453 | 453 | 451 | 452 | 451 | 450 | 449 | 449 | 449 | 448 | 447 | 445 | 442 | 439 | 437 | 435 | 434 | 434 | 434 |
| All Biths | 920 | 928 | 929 | 925 | 927 | 926 | 922 | 920 | 921 | 921 | 919 | 916 | 912 | 907 | 901 | 896 | 892 | 890 | 889 | 889 |
| TFR | 2.08 | 2.09 | 2.09 | 2.07 | 2.06 | 2.05 | 2.03 | 2.02 | 2.01 | 2.01 | 2.00 | 2.00 | 1.99 | 1.99 | 1.99 | 1.98 | 1.98 | 1.99 | 1.99 | 1.99 |
| Births input | * | * | * | * |  |  |  | * | * |  |  |  | * |  | * |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 382 | 385 | 391 | 392 | 393 | 397 | 402 | 407 | 412 | 417 | 423 | 430 | 437 | 444 | 451 | 459 | 468 | 476 | 483 | 490 |
| Female | 400 | 399 | 402 | 408 | 405 | 405 | 406 | 408 | 410 | 411 | 414 | 417 | 421 | 424 | 429 | 434 | 440 | 446 | 452 | 459 |
| All deaths | 782 | 784 | 793 | 800 | 797 | 802 | 808 | 815 | 822 | 828 | 837 | 847 | 858 | 868 | 880 | 893 | 908 | 922 | 935 | 950 |
| SMR: males | 91.0 | 88.9 | 87.5 | 85.3 | 82.6 | 81.1 | 79.5 | 78.0 | 76.5 | 74.9 | ${ }^{73.5}$ | 72.4 | 71.2 | 70.2 | 69.0 | 68.1 | 67.3 | 66.5 | 65.6 | 64.7 |
| SMR: females | 88.9 | 86.2 | 84.8 | 83.9 | 81.2 | 79.5 | 77.9 | 76.3 | 74.8 | 73.2 | 71.8 | 70.3 | 69.1 | 67.7 | ${ }_{66.6}$ | 65.4 | 64.3 | 63.1 | 62.0 | 61.3 |
| SMR: male \& female | 89.9 | 87.5 | 86.1 | 84.6 | 81.9 | 80.3 | 78.7 | 77.2 | 75.6 | 74.0 | ${ }^{72.6}$ | 71.3 | 70.2 | 68.9 | 67.8 | 66.8 | 65.8 | 64.8 | 63.8 | 63.0 |
| Expectation of life | 81.7 | 81.9 | 82.0 | 82.1 | 82.4 | 82.5 | 82.6 | 82.8 | 82.9 | 83.0 | 83.1 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 83.9 | 84.0 |
| Deaths input |  | * |  |  |  |  | * |  | * |  | * |  | * |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,416 | 2,435 | 2,455 | 2,470 | 2,484 | 2,498 | 2,508 | 2,518 | 2,527 | 2,535 | 2,542 | 2,548 | 2,554 | 2,562 | 2.571 | 2,579 | 2,589 | 2,599 | 2,609 | 2,620 |
| Female | 2,704 | 2,722 | 2,738 | 2,750 | 2,762 | 2,770 | 2,776 | 2,783 | 2,787 | 2,791 | 2,794 | 2,798 | 2,803 | 2,810 | 2,821 | 2,833 | 2,846 | 2,861 | 2,877 | 2,892 |
| All | 5,120 | 5,157 | 5,193 | 5,220 | 5,246 | 5,268 | 5,284 | 5,301 | 5,315 | 5,326 | 5,336 | 5,346 | 5,357 | 5,372 | 5,392 | 5,413 | 5,435 | 5,460 | 5,486 | 5,512 |
| SMigR: males | 61.7 | 62.0 | 62.3 | 62.6 | 62.7 | 62.8 | 62.9 | 63.0 | 63.1 | 63.2 | 63.3 | 63.3 | 63.2 | 63.2 | 63.3 | 63.2 | 63.1 | 63.1 | 63.1 | 63.0 |
| SMigR: females | 68.1 | 68.3 | 68.5 | 68.6 | 68.8 | 68.7 | 68.7 | 68.7 | 68.7 | 68.6 | 68.5 | 68.4 | 68.4 | 68.4 | 68.3 | 68.2 | 68.1 | 68.1 | 68.0 | 67.9 |
| Migrants input | . | - | * | * | . | * | * | - | * | . | . | * | . | * | * | * | . |  | * |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,171 | 2,175 | 2,191 | 2,204 | 2,220 | 2,238 | 2,248 | 2,257 | 2,266 | 2,269 | 2,272 | 2,291 | 2,302 | 2,312 | 2,323 | 2,336 | 2,349 | 2,356 | 2,367 | 2,383 |
| Female | 2,405 | 2,420 | 2,439 | 2,455 | 2,467 | 2,480 | 2,496 | 2,500 | 2,508 | 2,513 | 2,525 | 2,539 | 2,544 | 2,551 | 2,568 | 2,593 | 2,607 | 2,622 | 2,638 | 2,657 |
| All | 4,576 | 4,595 | 4,630 | 4,659 | 4,687 | 4,718 | 4,744 | 4,757 | 4,774 | 4,783 | 4,997 | 4,830 | 4,846 | 4,863 | 4,892 | 4,929 | 4,955 | 4,978 | 5,005 | 5,040 |
| SMigR: males | 55.4 | 55.4 | 55.6 | 55.8 | 56.0 | 56.3 | 56.4 | 56.5 | 56.6 | 56.6 | 56.6 | 56.9 | 57.0 | 57.1 | 57.2 | 57.3 | 57.3 | 57.2 | 57.2 | 57.3 |
| SMigR: females | 60.6 | 60.8 | 61.0 | 61.3 | 61.4 | 61.6 | 61.7 | 61.7 | 61.8 | 61.8 | 61.9 | 62.1 | 62.1 | 62.1 | 62.2 | 62.4 | 62.4 | 62.4 | 62.4 | 62.4 |
| Migrants input | * | * |  |  | , | , | . |  |  | * |  |  |  | 221 |  | . |  |  |  |  |


| Components of Population Change Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1 st . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 471 | 475 | 476 | 474 | 475 | 474 | 472 | 471 | 472 | 472 | 471 | 469 | 467 | 465 | 461 | 459 | 457 | 456 | 456 | 455 |
| Female | 449 | 453 | 453 | 451 | 452 | 451 | 450 | 449 | 449 | 449 | 448 | 447 | 445 | 442 | 439 | 437 | 435 | 434 | 434 | 434 |
| All Biths | 920 | 928 | 929 | 925 | 927 | 926 | 922 | 920 | 921 | 921 | 919 | 916 | 912 | 907 | 901 | 896 | 892 | 890 | 889 | 889 |
| TFR | 2.08 | 2.09 | 2.09 | 2.07 | 2.06 | 2.05 | 2.03 | 2.02 | 2.01 | 2.01 | 2.00 | 2.00 | 1.99 | 1.99 | 1.99 | 1.98 | 1.98 | 1.99 | 1.99 | 1.99 |
| Births input | * | * | * | * |  |  |  | * | * |  |  |  | * |  | * |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 382 | 385 | 391 | 392 | 393 | 397 | 402 | 407 | 412 | 417 | 423 | 430 | 437 | 444 | 451 | 459 | 468 | 476 | 483 | 490 |
| Female | 400 | 399 | 402 | 408 | 405 | 405 | 406 | 408 | 410 | 411 | 414 | 417 | 421 | 424 | 429 | 434 | 440 | 446 | 452 | 459 |
| All deaths | 782 | 784 | 793 | 800 | 797 | 802 | 808 | 815 | 822 | 828 | 837 | 847 | 858 | 868 | 880 | 893 | 908 | 922 | 935 | 950 |
| SMR: males | 91.0 | 88.9 | 87.5 | 85.3 | 82.6 | 81.1 | 79.5 | 78.0 | 76.5 | 74.9 | ${ }^{73.5}$ | 72.4 | 71.2 | 70.2 | 69.0 | 68.1 | 67.3 | 66.5 | 65.6 | 64.7 |
| SMR: females | 88.9 | 86.2 | 84.8 | 83.9 | 81.2 | 79.5 | 77.9 | 76.3 | 74.8 | 73.2 | 71.8 | 70.3 | 69.1 | 67.7 | ${ }_{66.6}$ | 65.4 | 64.3 | 63.1 | 62.0 | 61.3 |
| SMR: male \& female | 89.9 | 87.5 | 86.1 | 84.6 | 81.9 | 80.3 | 78.7 | 77.2 | 75.6 | 74.0 | ${ }^{72.6}$ | 71.3 | 70.2 | 68.9 | 67.8 | 66.8 | 65.8 | 64.8 | 63.8 | 63.0 |
| Expectation of life | 81.7 | 81.9 | 82.0 | 82.1 | 82.4 | 82.5 | 82.6 | 82.8 | 82.9 | 83.0 | 83.1 | 83.3 | 83.4 | 83.5 | 83.6 | 83.7 | 83.8 | 83.9 | 83.9 | 84.0 |
| Deaths input |  | * |  |  |  |  | * |  | * |  | * |  | * |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,416 | 2,435 | 2,455 | 2,470 | 2,484 | 2,498 | 2,508 | 2,518 | 2,527 | 2,535 | 2,542 | 2,548 | 2,554 | 2,562 | 2.571 | 2,579 | 2,589 | 2,599 | 2,609 | 2,620 |
| Female | 2,704 | 2,722 | 2,738 | 2,750 | 2,762 | 2,770 | 2,776 | 2,783 | 2,787 | 2,791 | 2,794 | 2,798 | 2,803 | 2,810 | 2,821 | 2,833 | 2,846 | 2,861 | 2,877 | 2,892 |
| All | 5,120 | 5,157 | 5,193 | 5,220 | 5,246 | 5,268 | 5,284 | 5,301 | 5,315 | 5,326 | 5,336 | 5,346 | 5,357 | 5,372 | 5,392 | 5,413 | 5,435 | 5,460 | 5,486 | 5,512 |
| SMigR: males | 61.7 | 62.0 | 62.3 | 62.6 | 62.7 | 62.8 | 62.9 | 63.0 | 63.1 | 63.2 | 63.3 | 63.3 | 63.2 | 63.2 | 63.3 | 63.2 | 63.1 | 63.1 | 63.1 | 63.0 |
| SMigR: females | 68.1 | 68.3 | 68.5 | 68.6 | 68.8 | 68.7 | 68.7 | 68.7 | 68.7 | 68.6 | 68.5 | 68.4 | 68.4 | 68.4 | 68.3 | 68.2 | 68.1 | 68.1 | 68.0 | 67.9 |
| Migrants input | . | - | * | * | . | * | * | - | * | . | . | * | . | * | * | * | . |  | * |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 2,171 | 2,175 | 2,191 | 2,204 | 2,220 | 2,238 | 2,248 | 2,257 | 2,266 | 2,269 | 2,272 | 2,291 | 2,302 | 2,312 | 2,323 | 2,336 | 2,349 | 2,356 | 2,367 | 2,383 |
| Female | 2,405 | 2,420 | 2,439 | 2,455 | 2,467 | 2,480 | 2,496 | 2,500 | 2,508 | 2,513 | 2,525 | 2,539 | 2,544 | 2,551 | 2,568 | 2,593 | 2,607 | 2,622 | 2,638 | 2,657 |
| All | 4,576 | 4,595 | 4,630 | 4,659 | 4,687 | 4,718 | 4,744 | 4,757 | 4,774 | 4,783 | 4,997 | 4,830 | 4,846 | 4,863 | 4,892 | 4,929 | 4,955 | 4,978 | 5,005 | 5,040 |
| SMigR: males | 55.4 | 55.4 | 55.6 | 55.8 | 56.0 | 56.3 | 56.4 | 56.5 | 56.6 | 56.6 | 56.6 | 56.9 | 57.0 | 57.1 | 57.2 | 57.3 | 57.3 | 57.2 | 57.2 | 57.3 |
| SMigR: females | 60.6 | 60.8 | 61.0 | 61.3 | 61.4 | 61.6 | 61.7 | 61.7 | 61.8 | 61.8 | 61.9 | 62.1 | 62.1 | 62.1 | 62.2 | 62.4 | 62.4 | 62.4 | 62.4 | 62.4 |
| Migrants input | * | * |  |  | , | , | . |  |  | * |  |  |  | 221 |  | . |  |  |  |  |










In-migration from Overseas
Male
Female
All
SMigR: males
SMigR: females
Migrants input
Out-migration to Overseas
Male
Female
Male
Female
SMigR: males
SMigR: females
Migrants input

| 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 | 0 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (1) |
| 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 | (1) |
| 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 | O |
| 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 | 34,852 | 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 | 565 |  |
| 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 |  |  |

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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
CompatiblelModel RunsICGT\Cheltenham, Gloucester, Tewkesbury JCS_inplscenario_ONS2010 zero international mig.xls

| 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:IHEaDROOM\1. POPGROUP v3.1 DF <br> Compatible\Model RunsICGT\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.xIs 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.

## Page 332

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.

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

| 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 |
| All Births | 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 | 2.14 | 2.13 | 2.11 | 2.10 | 2.08 | 2.06 | 2.05 | 2.04 | 2.04 | 2.03 | 2.02 | 2.02 | 2.01 | 2.00 | 1.99 | 1.99 | 1.99 | 1.99 | 2.00 |
| 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 |
| All deaths | 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 | 88.6 | 87.0 | 84.4 | 82.5 | 80.6 | 79.0 | 77.5 | 75.8 | 74.3 | 72.9 | 71.7 | 70.4 | 69.2 | 68.1 | 67.1 | 66.2 | 65.2 | 64.4 |
| SMR: females | 93.7 | 91.2 | 89.3 | 87.6 | 85.8 | 83.8 | 82.1 | 80.4 | 78.8 | 77.2 | 75.7 | 74.3 | 73.0 | 71.6 | 70.3 | 69.2 | 68.1 | 67.0 | 66.0 | 65.2 |
| SMR: male \& female | 93.5 | 90.5 | 89.0 | 87.3 | 85.1 | 83.2 | 81.3 | 79.7 | 78.2 | 76.5 | 75.0 | 73.6 | 72.3 | 71.0 | 69.7 | 68.6 | 67.6 | 66.6 | 65.6 | 64.8 |
| 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 | 9,051 | 9,104 | 9,154 | 9,196 | 9,232 | 9,257 | 9,269 | 9,276 | 9,275 | 9,274 | 9,288 | 9,307 | 9,327 | 9,354 | 9,396 | 9,442 | 9,482 | 9,528 | 9,580 | 9,636 |
| Female | 9,855 | 9,896 | 9,932 | 9,961 | 9,993 | 10,007 | 10,008 | 10,004 | 9,989 | 9,977 | 9,986 | 10,009 | 10,032 | 10,063 | 10,116 | 10,179 | 10,233 | 10,298 | 10,370 | 10,444 |
| All | 18,905 | 19,000 | 19,086 | 19,156 | 19,225 | 19,264 | 19,277 | 19,280 | 19,264 | 19,251 | 19,273 | 19,316 | 19,359 | 19,417 | 19,512 | 19,621 | 19,715 | 19,826 | 19,949 | 20,080 |
| SMigR: males | 53.8 | 53.8 | 53.7 | 53.7 | 53.7 | 53.7 | 53.6 | 53.6 | 53.5 | 53.5 | 53.5 | 53.5 | 53.6 | 53.6 | 53.6 | 53.6 | 53.6 | 53.5 | 53.5 | 53.5 |
| SMigR: females | 58.2 | 58.1 | 58.0 | 58.0 | 58.1 | 58.2 | 58.2 | 58.2 | 58.1 | 58.1 | 58.1 | 58.2 | 58.3 | 58.3 | 58.3 | 58.3 | 58.2 | 58.2 | 58.2 | 58.2 |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 8,518 | 8,577 | 8,656 | 8,708 | 8,743 | 8,784 | 8,805 | 8,816 | 8,826 | 8,822 | 8,833 | 8,856 | 8,869 | 8,890 | 8,931 | 8,974 | 9,016 | 9,055 | 9,104 | 9,163 |
| Female | 9,343 | 9,435 | 9,516 | 9,552 | 9,591 | 9,597 | 9,599 | 9,599 | 9,594 | 9,568 | 9,579 | 9,587 | 9,590 | 9,607 | 9,665 | 9,743 | 9,797 | 9,870 | 9,942 | 10,019 |
| All | 17,861 | 18,011 | 18,171 | 18,260 | 18,334 | 18,381 | 18,405 | 18,415 | 18,420 | 18,391 | 18,412 | 18,443 | 18,459 | 18,497 | 18,596 | 18,717 | 18,814 | 18,925 | 19,047 | 19,182 |
| SMigR: males | 50.6 | 50.7 | 50.8 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 50.9 | 51.0 | 51.0 | 50.9 | 50.9 | 50.9 | 50.8 |
| SMigR: females | 55.1 | 55.3 | 55.6 | 55.6 | 55.8 | 55.8 | 55.8 | 55.8 | 55.8 | 55.7 | 55.8 | 55.8 | 55.7 | 55.7 | 55.7 | 55.8 | 55.7 | 55.8 | 55.8 | 55.8 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| All | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SMigR: males |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMigR: females |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Migrants input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| All | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 |

SMigR: males
SMigR: females
Migrants input



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Summary of Population estimates/forecasts
Summary of population change
Net migration
Migration - Net Flows

Natural change
Net migration
Net change
Net migratio
Net change

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| 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 |  |
| Summary of population |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 Pop | tion es | imate | /forec | asts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Population | at mid-ye |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 | ${ }_{8} \mathbf{7}, 98$ | 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 | ${ }^{11,855}$ |  |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 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 |  | Q |
| 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 |  |  |

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Tewkesbury
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Components of Population Change
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In－migration from Overseas
Male
Female
All
SMigR：males
SMigR：females
Migrants input
Out－migration to Overseas
Male
Female
SMigR：males
SMigR：females
Migrants input


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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury
JCS_inplscenario_ONS2010 zero international mig LOW UNEMP.xls
Tick to save as new flat file

| Produce flat file <br> 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) <br> << Save flat file with this name (may be blank if to be appended to an existing file) |
| :---: | :---: | :---: |
|  |  |  |
|  | G:IHEaDROOM\1. POPGROUP v3.1 DF <br> Compatible\Model Runs\CardifflCGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_ONS2010 zero international mig LOW UNEMP.xls |  |

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.xIs 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.

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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.

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

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| Summary of pop |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 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 | 6,554 | 6,859 | 6,338 | 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 | 129,995 | 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 | 6.547 | 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 | +799 | $+698$ | +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 revious 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 | 67,74 | 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 | ${ }_{+461}$ | ${ }_{+488}$ | $\stackrel{+882}{ }$ | $\stackrel{+427}{ }$ | ${ }_{+452}$ | +381 | +440 | $\stackrel{+395}{ }$ | ${ }_{+286}$ | $\stackrel{+82}{ }$ | $\stackrel{+293}{ }$ | $\stackrel{+436}{ }$ | +353 | +270 | +275 | ${ }_{+348}$ | $+433$ | ${ }_{+385}$ | $\stackrel{+07}{ }$ | $+144$ |  |

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This file was produced using the scenario file G:IHEaDROOM\1. POPGROUP v3.1 DF
CompatiblelModel RunsICGT\Cheltenham, Gloucester, Tewkesbury JCS_inplscenario_PAST
TREND MIGRATION.xIs
Tick to save as new flat file

| Produce flat file <br> 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) <br> << Save flat file with this name (may be blank if to be appended to an existing file) |
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|  |  |  |
|  | G:IHEaDROOM11. POPGROUP v3.1 DF Compatible\Model Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_PAST TREND MIGRATION.xls |  |

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.

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

| Components of Population Change Chet, Glouc, Tewkes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | ing July |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2029 |  |
| Births |  |  | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | ${ }^{2023}$ | ${ }^{2024}$ | 2025 | 2026 | 2027 | 2028 |  | 2030 |
| 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 Biths | 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 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,345 | ${ }^{1,332}$ | 1,352 | 1.366 | 1.362 | 1.370 | ${ }_{1,378}$ | 1,330 | 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 | ${ }_{2}^{2,386}$ | 2,847 | 2,867 | 2,889 | 2.917 | 2,944 | 2,977 | 3,015 | 3,059 | 3,102 | 3,46 | 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 | ${ }^{5} 5.3$ | ${ }^{73.9}$ | ${ }^{2} 2.5$ | 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 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 | 8,884 | 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 | 9,45 | ${ }^{9,142}$ | 9,139 | 9,142 | 9,153 | 9,161 | 9,174 |
| All | 17,628 | 17,628 | 17,628 | 17,228 | 17,628 | 17,228 | 17,628 | 17,228 | 17,228 | 17,628 | 17,228 | 17,628 | 17,228 | 17,628 | 17,228 | 17,628 | 17,228 | 17,228 | 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 | ${ }^{1,399}$ | ${ }^{1,397}$ | ${ }^{1,395}$ | ${ }^{1,394}$ | ${ }_{1}^{1,332}$ | ${ }^{1,391}$ | ${ }_{1}^{1.330}$ | ${ }^{1,330}$ | ${ }_{1}^{1,330}$ | ${ }^{1.330}$ | ${ }^{1,390}$ | ${ }^{1.388}$ | ${ }_{1}^{1,386}$ | ${ }_{1}^{1,384}$ | ${ }_{1}^{1,384}$ | ${ }^{1.383}$ | ${ }^{1,382}$ | ${ }^{1,380}$ | ${ }^{1,779}$ |
| Female | 1,226 | 1,229 | 1,231 | ${ }^{1,233}$ | 1,234 | ${ }^{1,236}$ | ${ }^{1,237}$ | ${ }^{1,238}$ | ${ }^{1,238}$ | ${ }^{1,238}$ | 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 | ${ }_{2}^{2,628}$ | ${ }_{2}^{2,628}$ | ${ }^{2,628}$ | ${ }^{2.628}$ | ${ }^{2,628}$ | ${ }^{2,1288}$ |
| SMIigR: 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 Migants input | 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 | 100.8 | 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 | ${ }^{1.035}$ | ${ }^{1.035}$ | 1,035 | 1.036 | 1.037 | ${ }^{1,038}$ | 1.039 | 1.040 | 1.042 | 1,043 | 1.044 |
|  | 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 |  | +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 | 0 |
| 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 | 0 |
| 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 | (1) |
| 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 | (1) |
| $85+$ | 8,707 | 8.973 | 9,188 | 9,384 | 9,64 | 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 | 15,38 | 16,10 | 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 | $\begin{aligned} & 7^{081} \\ & \infty \end{aligned}$ |
| 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 |  |


| Components of Population Change |  |  |  |  |  | Cheltenham |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1 st |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Births |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 728 | 737 | 737 | 732 | 730 | 729 | 728 | 728 | 731 | 733 | 733 | 733 | 731 | 731 | 726 | 719 | 717 | 714 | 712 | 710 |
| Female | 694 | 702 | 702 | 698 | 696 | 694 | 693 | 693 | 696 | 698 | 698 | 698 | 696 | 696 | 691 | 685 | 682 | 680 | 678 | 676 |
| All Biths | 1,422 | 1.440 | 1,438 | 1,430 | 1,426 | 1,423 | 1,422 | 1,421 | 1,427 | 1,431 | 1,432 | 1,431 | 1,427 | 1,427 | 1,417 | 1,404 | 1,399 | 1,395 | 1,390 | 1,386 |
| TFR | 1.98 | 2.00 | 1.99 | 1.97 | 1.95 | 1.93 | 1.91 | 1.89 | 1.88 | 1.87 | 1.86 | 1.85 | 1.84 | 1.84 | 1.83 | 1.82 | 1.82 | 1.82 | 1.82 | 1.82 |
| Births input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deaths |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 473 | 462 | 467 | 471 | 475 | 476 | 474 | 477 | 481 | 483 | 488 | 491 | 496 | 500 | 507 | 513 | 520 | 528 | 536 | 544 |
| Female | 551 | 548 | 544 | 535 | 536 | 531 | 526 | 521 | 519 | 517 | 516 | 517 | 517 | 519 | 521 | 524 | 528 | 534 | 539 | 547 |
| All deaths | 1,024 | 1,010 | 1,011 | 1,006 | 1,011 | 1,006 | 1,000 | 998 | 999 | 1,000 | 1,004 | 1,008 | 1,013 | 1,019 | 1,028 | 1,038 | 1,049 | 1,062 | 1,075 | 1,091 |
| SMR: males | 88.1 | 83.9 | 82.6 | 81.1 | 79.9 | 77.9 | 75.9 | 74.5 | 73.2 | 71.6 | 70.4 | 68.9 | 67.8 | 66.6 | 65.7 | 64.7 | 63.8 | ${ }^{63.1}$ | 62.3 | 61.6 |
| SMR: females | 89.4 | 87.7 | 85.8 | 83.0 | 82.0 | 80.2 | 78.3 | 76.5 | 75.0 | 73.3 | 71.7 | 70.4 | 69.0 | 67.8 | 66.5 | 65.3 | 64.2 | 63.3 | 62.3 | 61.6 |
| SMR: male \& female | 88.8 | 85.9 | 84.3 | 82.1 | 81.0 | 79.1 | 77.1 | 75.5 | 74.1 | 72.5 | 71.1 | 69.7 | 68.4 | 67.2 | 66.1 | 65.0 | 64.0 | 63.2 | 62.3 | 61.6 |
| Expectation of life | 81.9 | 82.2 | 82.3 | 82.5 | 82.6 | 82.8 | 83.0 | 83.1 | 83.2 | 83.3 | 83.4 | 83.5 | 83.7 | 83.8 | 83.9 | 84.0 | 84.1 | 84.2 | 84.2 | 84.3 |
| Deaths input |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In-migration from the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,407 | 3,404 | 3,398 | 3,389 | 3,386 | 3,367 | 3,358 | 3,362 | 3,368 | 3,361 | 3,358 | 3,354 | 3,346 | 3,345 | 3,344 | 3,342 | 3,336 | 3,326 | 3,315 | 3,308 |
| Female | 3,757 | 3,760 | 3,766 | 3,775 | 3,778 | 3,797 | 3,806 | 3,802 | 3,796 | 3,803 | 3,806 | 3,810 | 3,818 | 3,819 | 3,820 | 3,822 | 3,828 | 3,838 | 3,849 | 3,856 |
| All | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 | 7,164 |
| SMigR: males | 53.8 | 53.6 | 53.3 | 53.0 | 52.9 | 52.6 | 52.5 | 52.6 | 52.8 | 52.8 | 52.9 | 52.9 | 52.8 | 52.9 | 52.8 | 52.8 | 52.6 | ${ }_{52.3}$ | 52.0 | 51.7 |
| SMigR: females | 58.5 | 57.9 | 57.4 | 57.1 | 56.9 | 57.1 | 57.3 | 57.3 | 57.2 | 57.5 | 57.6 | 57.9 | 58.1 | 58.1 | 57.9 | 57.5 | 57.1 | 56.8 | 56.5 | 56.1 |
| Migrants input |  |  | * | * | * |  | . | . | * |  | * | * | * |  | * | * | . |  |  |  |
| Out-migration to the UK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 3,358 | 3,343 | 3,335 | 3,325 | 3,316 | 3,307 | 3,300 | 3,298 | 3,305 | 3,305 | 3,300 | 3,308 | 3,302 | 3,307 | 3,311 | 3,308 | 3,307 | 3,292 | 3,280 | 3,271 |
| Female | 3,706 | 3,721 | 3,729 | 3,739 | 3.748 | 3,757 | 3,764 | 3,766 | 3,759 | 3,759 | 3,764 | 3,756 | 3,762 | 3,757 | 3,753 | 3,756 | 3,757 | 3,772 | 3,784 | 3,793 |
| All | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 | 7,064 |
| SMigR: males | 53.0 | 52.6 | 52.3 | 52.0 | 51.8 | 51.6 | 51.6 | 51.6 | 51.8 | 52.0 | 52.0 | 52.1 | 52.1 | 52.3 | 52.3 | 52.2 | 52.1 | 51.8 | 51.4 | 51.1 |
| SMigR: females | 57.7 | 57.3 | 56.8 | 56.6 | 56.4 | 56.5 | 56.7 | 56.7 | 56.7 | 56.8 | 57.0 | 57.0 | 57.2 | 57.1 | 56.9 | 56.5 | 56.1 | 55.8 | 55.5 | 55.1 |
| Migrants input | * |  | * | * | * | * | * | * | * | * | * | * | * |  | * | * | * |  |  |  |
| In-migration from Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 765 | 762 | 759 | 757 | 756 | 754 | 751 | 749 | 748 | 748 | 747 | 747 | 745 | 742 | 740 | 739 | 738 | ${ }^{737}$ | 735 | 734 |
| Female | 678 | 681 | 684 | 686 | 687 | 689 | 692 | 694 | 695 | 695 | 696 | 696 | 698 | 701 | 703 | 704 | 705 | 706 | 708 | 709 |
| All | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 |
| SMigR: males | 169.8 | 168.6 | 167.7 | 167.1 | 166.9 | 166.8 | 166.8 | 167.0 | 167.6 | 168.4 | 169.3 | 170.1 | 170.5 | 170.9 | 171.1 | 171.2 | 171.2 | 170.9 | 170.2 | 169.3 |
| SMigR: females | 159.7 | 158.3 | 157.0 | 155.9 | 155.0 | 154.7 | 154.9 | 155.3 | 155.5 | 156.1 | 157.0 | 157.7 | 159.0 | 160.4 | 161.4 | 161.8 | 161.7 | 161.5 | 160.9 | 159.9 |
| Migrants input | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Out-migration to Overseas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 741 | 738 | 734 | 731 | 729 | 726 | 725 | 723 | 722 | 721 | 720 | 720 | 719 | 718 | 716 | 715 | 714 | 712 | 711 | 710 |
| Female | 588 | 591 | 595 | 598 | 600 | 603 | 604 | 606 | 607 | 608 | 609 | 609 | 610 | 611 | 613 | 614 | 615 | 617 | 618 | 619 |
| All | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 | 1,329 |
| SMigR: males | 164.7 | 163.4 | 162.2 | 161.3 | 160.9 | 160.8 | 161.0 | 161.2 | 161.7 | 162.4 | 163.2 | 164.0 | 164.7 | 165.4 | 165.7 | 165.7 | 165.6 | 165.2 | 164.6 | 163.9 |
| SMigR: females | 138.3 | 137.3 | 136.5 | 135.9 | 135.5 | 135.2 | 135.2 | 135.6 | 135.9 | 136.5 | 137.3 | 137.9 | 138.8 | 139.8 | 140.6 | 141.1 | 141.1 | 141.1 | 140.4 | 139.6 |
| Migrants input | - | * | * | - | * | - | * | * | * | * | . | - | - | * | . | . | * | - | * |  |



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| Components of Population Change |  |  |  |  |  | Gloucester |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year beginning July 1 st. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 Biths | 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 |
| 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 | 2,663 | 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 | 82.5 | 82.4 | 82.2 | 81.9 | 81.4 | 80.8 | 80.1 | 79.3 | 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 |  |  |  |  |  |  |  |  | * | * | * | * | - | * |  |  | * | * | * | * |



| Components of Population Change |  |  |  |  |  | Tewkesbury |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ng July |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 Biths | 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 | ${ }_{56} 6$ | 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 | 41.0 | 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 |  | +9,460 |  |
| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 Popu | imate | /forec | asts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | t mid-y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 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 | 5,999 | 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 | ${ }^{\text {9,933 }}$ | 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 | 0 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Q10 |
| 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 | (1) |
| 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:IHEaDROOM11. POPGROUP v3.1 DF
CompatiblelModel RunsICGT\Cheltenham, Gloucester, Tewkesbury JCS_inplscenario_PAST
TREND MIGRATION LOW UNEMP.xls
Tick to save as new flat file

| 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:IHEaDROOM11. POPGROUP v3.1 DF Compatible\Model RunsICGT\Cheltenham, Gloucester, Tewkesbury JCS_outlFlatComp_PAST TREND MIGRATION LOW UNEMP.xIs | << 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.

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

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

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Page 369
［ Applications \＆Appeals
㤂 Climate Change \＆Sustainability
if Community Engagement
总：Daylight \＆Sunlight
角 Economics \＆Regeneration
영 E Environmental Assessment
Br Expert Evidence
－GIS \＆Graphics
IT Heritage
© Property Economics
Q Site Finding \＆Land Assembly
Ctrategy \＆Appraisal
TO Urban Design

## Cardiff

02920435880

## Leeds

01133971397
London
02078374477
Manchester
01618376130

## Newcastle

01912615685
nlpplanning．com


[^0]:    ${ }^{1}$ It is considered that the ONS 2010-based Sub National Population Projection Assessment figure of 28,500 dwellings is the most recently available data.

[^1]:    ${ }^{1}$ This is the same modelling software that was also used by Gloucestershire County Council.

[^2]:    ${ }^{2}$ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

[^3]:    ${ }^{3}$ Source: ABI / BRES data

[^4]:    ${ }^{4}$ 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.

[^5]:    Source: ONS Population Estimates Unit / ONS Migration Statistics Unit

[^6]:    ${ }^{5}$ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

[^7]:    Source: NLP Analysis of PopGroup Outputs

[^8]:    ${ }^{6}$ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

[^9]:    ${ }^{7}$ 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.

[^10]:    ${ }^{8}$ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

[^11]:    Source: ONS Mid Year Population Projections

[^12]:    Source: NLP Analysis of PopGroup Outputs

[^13]:    Source: NLP Analysis

[^14]:    Source: NLP Analysis of PopGroup Outputs

[^15]:    Out-migration to Overseas
    Male
    Male
    Female
    SMigR: males
    SMigR: females
    Migrants input

[^16]:    Out－migration to Overseas
    Male
    Male
    Female
    SMigR：males
    SMigR：females
    Migrants input

[^17]:    Out-migration to Overseas
    Male
    Male
    Female
    SMigR: males
    SMigR: females
    SMigrants input
    Mige

[^18]:    Out－migration to Overseas
    Male
    Male
    Female
    SMigR：males
    SMigR：females
    Migrants input

[^19]:    Out－migration to Overseas
    Male
    Male
    Female
    All
    SMigR：males
    SMigR：females
    Migrants input

[^20]:    In-migration from Overseas
    Male
    Female
    All
    SMigR: males
    SMigR: females
    Migrants input
    Out-migration to Overseas
    Male
    Male
    Female
    All
    SMigR: males
    SMigR: females
    SMigR: females
    Migrants input

