

**Technical Response to Comments on the  
Draft Plan Strategy for Belfast**  
Belfast City Council

June 2019

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# 1. Introduction

- 1.1 Turley and Edge Analytics were appointed by Belfast City Council ('the Council') to undertake a study considering the future population and housing growth of Belfast<sup>1</sup>. The Housing Growth Options Report<sup>2</sup> was published in October 2016, providing the Council with a reasonable range of population and household growth scenarios for its administrative area.
- 1.2 The recommended growth scenario would grow the labour force of Belfast to support baseline employment growth, as forecast by Ulster University (UU), and require provision for 1,600 – 1,800 dwellings per annum (dpa) over the period from 2014 to 2035. This conclusion was based on a modelled scenario that, when rounded, suggested an overall need for 37,000 homes over this period.
- 1.3 To inform the Draft Plan Strategy (DPS), the Council derived an annual need from this overall figure (1,762dpa), and used this annual figure as a basis for calculating housing need over the selected plan period (2020 – 2035). When accounting for undersupply over the preceding six years, the Council has proposed a requirement for 31,660 new homes over the plan period<sup>3</sup>. This approach is intended to meet the calculated need for 37,000 homes between 2014 and 2035.
- 1.4 The DPS was subject to consultation in autumn 2018, with a small number of respondents referring to the Housing Growth Options Report in submissions. This report has been commissioned to assist the Council in providing informed responses to specifically identified comments. It provides the Council with supplementary information and technical clarifications on the following:
- **The job growth that could be reasonably supported where housing provision was constrained to the Housing Growth Indicator (HGI)**, relative to the job growth targeted by the Council. The prospect and impact of future changes in labour force behaviour, beyond those used in the modelling within the Housing Growth Options Report, are also explored;
  - **The higher migration assumed under the recommended growth scenario**, and the means through which this could be achieved; and
  - **The purpose and implications of housing market areas**, and their relevance when plans are being developed for individual districts across Northern Ireland.
- 1.5 This report considers each of these matters in turn, following a concise overview of the recommended growth scenario for contextual purposes in section 2.

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<sup>1</sup> References to Belfast throughout this report relate to the administrative area of Belfast City Council unless otherwise specified

<sup>2</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study

<sup>3</sup> Belfast City Council (2018) Belfast Local Development Plan: Draft Plan Strategy 2035, Policy HOU1

## 2. Recommended Growth Scenario

2.1 As introduced in the previous section, the Housing Growth Options Report was produced to provide the Council with a reasonable range of population and household growth scenarios for Belfast over the plan period.

2.2 Three potential growth scenarios were developed by Edge Analytics using the POPGROUP<sup>4</sup> suite of software, namely:

- **Scenario 1 – Adjusted Demographic Growth** – a demographic trend-based scenario derived from historic trends recorded over the then-latest two year period (2012 – 2014). This implied a higher level of growth than suggested by the then-latest 2014-based official projections, which were produced by NISRA and drew upon a slightly longer trend period. In the case of Belfast, the then most recent two years were considered to reflect more representative, positive and improving demographic trends in the city, including a reducing net outflow of residents and an underlying picture of a return to growth in employment;
- **Scenario 2 – Supporting Baseline Employment Growth** – this scenario illustrated the scale of population and labour force growth that may be necessary to support baseline levels of employment growth forecast by Ulster University (UU). The modelling was predicated upon the application of prudent assumptions on labour force behaviour; and
- **Scenario 3 – Supporting Higher Employment Growth** – following a comparable approach to Scenario 2, this scenario sought to assess the scale of population and household growth likely to be associated with supporting a more positive forecast of employment growth developed by UU.

2.3 The level of population, housing and employment growth associated with each of the scenarios is summarised in the following table, based on change over the full assessment period (2014 – 2035).

**Table 2.1: Summary of Scenario Implications (2014 – 2035)**

	<b>Scenario 1</b> Adjusted Demographic Growth	<b>Scenario 2</b> Supporting Baseline Employment Growth	<b>Scenario 3</b> Supporting Higher Employment Growth
Additional residents	19,000	66,000	89,000
Additional homes needed	17,000	37,000	47,800
Additional jobs supported	–	46,000	69,000

*Source: Edge Analytics; Turley*

<sup>4</sup> POPGROUP is widely used by local authorities and private sector users to support Local Plan development across the UK. POPGROUP is also used by NISRA in the development of its Local Government District (LGD) population and household projections

- 2.4 The range of growth options implied by the variant scenarios was refined through consideration of their likely demographic and economic implications. While Scenario 1 demonstrated the strongest alignment with recent demographic growth trends, it was considered that this would not sufficiently represent the Council's vision to return to stronger growth in Belfast. It was suggested that planning for growth in accordance with this scenario would pose risks to the future sustainable growth of the city. It was highlighted that this would continue development at a suppressed rate which contrasts with the more positive market and macro-economic context prior to the recession. Growth of this scale would result in Belfast continuing to grow at a slower rate than comparator UK cities, with the assumed net outflow of residents failing to significantly grow the labour force and risking the city's future economic growth.
- 2.5 Although it was recognised that the relationship between employment and population is complex, planning for a higher level of housing growth would be more likely to grow the labour force and enable the attraction and retention of working age residents who would otherwise move elsewhere in Northern Ireland or overseas. Planning for at least baseline employment growth in Belfast (Scenario 2) was concluded as a reasonable and credible option for the city which enables its continued economic growth.
- 2.6 While the higher level of employment growth under Scenario 3 is predicated upon a robustly generated forecast, it was noted that the modelling of associated population and household growth suggested a more ambitious and significant departure from longer term rates of growth, which could yield more marked changes in labour force behaviour than assumed when modelling growth scenarios. Increasing participation in the economy – associated with strong job growth and successful policy intervention aimed at this outcome – would reduce the level of population and housing growth needed to support forecast job growth from that implied within the modelling outputs presented.
- 2.7 Within this context, it was noted that both Scenario 2 and Scenario 3 would require a significant increase in recent levels of housing delivery in Belfast, assuming a return to pre-recession levels of development which are sustained over the plan period. That Belfast has not consistently achieved such levels of development over recent years was seen to necessitate some caution in considering the level of provision which could be realistically supported by the market over the plan period.
- 2.8 These factors suggested that it would be reasonable and credible to plan for a level of population and household growth within the range implied by Scenario 1 and Scenario 2, with the evidence implying closer alignment with Scenario 2. Providing between **1,600 – 1,800 dwellings per annum** over the period from 2014 to 2035 was considered reasonable in light of these considerations, growing the labour force to support baseline levels of employment growth while allowing for reasonable future changes in labour force behaviour.
- 2.9 Of the scenarios modelled to arrive at this conclusion, Scenario 2 sits within this range in suggesting a need for circa 1,750 dwellings per annum. For consistency with this conclusion, the modelling outputs from this scenario are used to inform the analysis in this report.

### 3. Job Growth Supported by the Housing Growth Indicator

- 3.1 The Housing Growth Options Report sought to establish the number of homes likely to be needed in Belfast to provide the labour force necessary to support 46,000 additional jobs. It concluded that 1,600 – 1,800 dwellings per annum would enable this level of job growth to be supported, and represent a reasonable level of provision over the period from 2014 to 2035.
- 3.2 As such, the Housing Growth Options Report suggested that the Council, in planning for such a level of job growth, would need to provide for a higher level of housing growth than the published Housing Growth Indicator (HGI) for Belfast, which established a need for 1,054 dwellings per annum. By implication, the modelling identified that such a level of housing provision would not grow the labour force to the extent required to support 46,000 additional jobs, based on reasonable assumptions around the behaviour of the existing and future labour force that are outlined later in this section.
- 3.3 To further illustrate this point, in response to comments on the DPS, the Council has commissioned Edge Analytics to provide a focused scope of additional demographic modelling. This modelling is intended to specifically illustrate the population and labour force implications of constraining housing provision to the level stipulated under the HGI (1,054dpa) over a common period to that assessed in the Housing Growth Options Report (2014 – 2035). Modelled growth is therefore driven by change in the housing stock (“dwelling-led”), differing from the “jobs-led” nature of the recommended growth scenario.
- 3.4 This scenario has been developed within the model that was configured by Edge Analytics to inform the Housing Growth Options Report in 2016. Beyond the newly specified level of housing growth, all other inputs and assumptions are unchanged and fully consistent with the previous modelling to enable a direct comparison<sup>5</sup>. The modelling is not therefore intended to provide an update to that presented in the Housing Growth Options Report, but provides complementary analysis to aid interpretation of its conclusions and enable a more direct comparison with the housing need projected under the HGI.
- 3.5 The outputs of this modelling exercise confirm that provision in line with the HGI would create a risk that the labour force required to support 46,000 additional jobs would not be accommodated. It is estimated that the HGI would provide a labour force capable of supporting only 18,500 jobs in Belfast, based on the assumptions applied in the Housing Growth Options Report. This is less than half the job growth targeted by the Council. The modelling indicates that providing for new housing to align with the HGI would not facilitate an inflow of migrants into the city, and indeed would lead to a small net outflow throughout the period to 2035. The demographic implications of this scenario are presented alongside the recommended growth scenario from the Housing Growth Options Report in Table 3.1 overleaf.

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<sup>5</sup> These assumptions are documented at Appendix 2 of the Housing Growth Options Report

**Table 3.1: Benchmarking Job Growth Supported in Belfast by HGI (2014 – 2035)**

	Recommended growth scenario (Scenario 2)	Housing Growth Indicator
<b>Dwellings per annum</b>	<b>1,759</b>	<b>1,054</b>
Total household change	34,501	20,672
Total population change	65,892	34,528
Net migration per annum	1,264	-32
<b>Total new employment supported</b>	<b>46,428</b>	<b>18,485</b>

Source: Edge Analytics

### Considering labour force behaviour

3.6 The Housing Growth Options Report recognised that there is ‘*a significant level of uncertainty involved in projecting forward labour-force behaviour*’<sup>6</sup>. The recommended growth scenario was underpinned by ‘*prudent assumptions*’, acknowledging this uncertainty and the strong likelihood that over-optimism would be scrutinised through the plan-making process. This is a regular occurrence in plan-making elsewhere in the UK, with the Planning Advisory Service (PAS) in England describing the importance of avoiding:

*“...unrealistic assumptions on the relationship between housing, population and jobs. A number of housing assessments have been criticised by Inspectors for expecting very fast increases in economic activity rates [for example]. Such increases reduce the population growth, and hence number of homes, that is required to support a given number of jobs. But **unrealistic figures put the emerging plan at risk**”<sup>7</sup> (emphases added)*

3.7 This advice – and experience of assembling evidence and plan-making in England at the time (2016) – shaped the approach taken in the configuration of modelling to inform the Housing Growth Options Report.

3.8 The modelling therefore integrated the following labour-force behaviour assumptions:

- No assumed change in the **commuting ratio**, which measures the balance between the number of workers resident in an area and the number of jobs within the same geography. This acknowledged that any change in the ratio would require a parallel change to be recognised in any such modelling / assessment in authorities from which Belfast has commuting relationships. The applied ratio of 0.61 resident workers per job, derived from the 2011 Census, assumes that Belfast continues to attract a large net in-commute from other parts of Northern Ireland, which is proportionate to that which exists today;

<sup>6</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, paragraph 4.26

<sup>7</sup> Planning Advisory Service (2015) Objectively Assessed Need and Housing Targets: technical advice note, paragraph 8.15

- The **unemployment rate** was initially based on the average in the then-latest two year period (2013/14) but was reduced to assume that 10% of additional jobs are taken by unemployed residents. This sought to align with the assumption made in the UU forecasting model, following correspondence between Turley and UU in 2016. Edge Analytics’ application of this assumption reduces the unemployment rate from 6.2% to 3.9% over the assessment period;
- It is assumed that 3.2% of the labour force hold more than one job (“**double jobbing**”). This was the average rate of double jobbing recorded in Northern Ireland by the Annual Population Survey during the preceding decade, with a high degree of consistency observed throughout this period; and
- The age- and gender-specific **economic activity rates** recorded in Belfast by the 2011 Census are initially applied at the base date of the modelling, but subject to adjustment thereafter to reflect changes within the then-latest UK labour market forecasts produced by the Office for Budget Responsibility<sup>8</sup> (OBR). Such forecasts are relied upon by the UK Government to inform future long-term budgetary planning, providing a consistent and robust source of information which ensures that reasonable assumptions are applied for the purposes of considering long-term changes in labour force behaviour at the local level. Their use for this purpose in England was endorsed by an independent expert group into Local Plans<sup>9</sup>.

3.9 The Housing Growth Options Report acknowledged the sensitivity of its modelling to the labour force behaviour assumptions that are applied<sup>10</sup>. It accepted that the UU model itself applied alternative assumptions, which could potentially allow 46,000 jobs to be supported through a more limited growth of the population and indeed a very limited growth in working age population<sup>11</sup>. The precise assumptions applied in the UU work were not available, in detail, to fully inform the study. However, through ongoing work, Turley continues to liaise with UU and the Council to ensure that there is clarity on this aspect and to provide an understanding of the differing assumptions applied within the respective models<sup>12</sup>.

3.10 This does not, however, restrict further consideration of this issue, with additional modelling having been commissioned from Edge Analytics to respond to comments on the DPS. The modelling is set in the context of the HGI, assuming – as earlier in this section – that 1,054 dwellings per annum are provided in Belfast throughout the plan period, equivalent to 22,134 homes in total (2014-35). With population growth constrained to this level of housing provision, it estimates how the labour force accommodated through such growth would *need* to behave to support the creation of around 46,000 jobs in Belfast. The methodology is outlined at Appendix 1.

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<sup>8</sup> Office for Budget Responsibility (2014) Fiscal Sustainability Report

<sup>9</sup> Local Plans Expert Group (2016) Appendix 6 of Report to Government

<sup>10</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, paragraph 4.42

<sup>11</sup> *Ibid*, Figures 4.15 and 4.16

<sup>12</sup> *Ibid*, paragraph 4.41



3.11 While the capacity of the labour force to support job growth could grow through a combination of increased economic participation, reduced unemployment, greater double jobbing and changes to net commuting, for example, it is necessary to isolate these individual behaviours for the purposes of this modelling. As such, the following sub-sections seek to separately illustrate:

- The change in commuting patterns that would need to materialise during the assessment period to support around 46,000 jobs in Belfast, when other assumptions – outlined earlier in this section – are unchanged and housing provision is constrained to the HGI;
- How the unemployment rate would need to change during the assessment period, when other assumptions are unchanged and housing provision is constrained to the HGI;
- The rate of double jobbing that would need to occur, when other assumptions are unchanged and housing provision is constrained to the HGI; and
- The change in the rate of economic participation that would be necessary, when other assumptions are unchanged and housing provision is constrained to the HGI.

### **Commuting**

3.12 Within the DPS, the Council has identified that the catchment area of Belfast generates *'high volumes of commuters travelling by car into the city during the working week',* creating *'severe traffic congestion and air pollution'* which is in turn *'affecting community health and degrading the environmental quality of the city'*<sup>13</sup>. It therefore seeks to *'promote sustainable growth that strengthens the economy to create jobs, and encourages more people to live within the city to reduce traffic congestion and air pollution'*<sup>14</sup>. The Belfast Agenda similarly expresses an ambition to *'encourage more people to both live and work in the city, directly contributing to its success, vibrancy and sustainability'*<sup>15</sup>.

3.13 Where housing provision is limited to 1,054 dwellings per annum, and other assumptions are unchanged, the modelling indicates that a substantively higher level of net in-commuting would be necessary to support the creation of 46,000 additional jobs in Belfast. This conflicts with the ambitions of the DPS and the Belfast Agenda.

3.14 While Belfast had a ratio of 0.61 resident workers per job in 2011, this would need to fall to 0.55 workers per job by 2035 to support this level of job creation. As such, the city would become still further dependent upon a labour force that lives elsewhere, with a net in-commute of circa 131,500 people to service the jobs forecast to exist in 2035; some 34,000 larger than estimated at the start of the modelling period<sup>16</sup> (2014).

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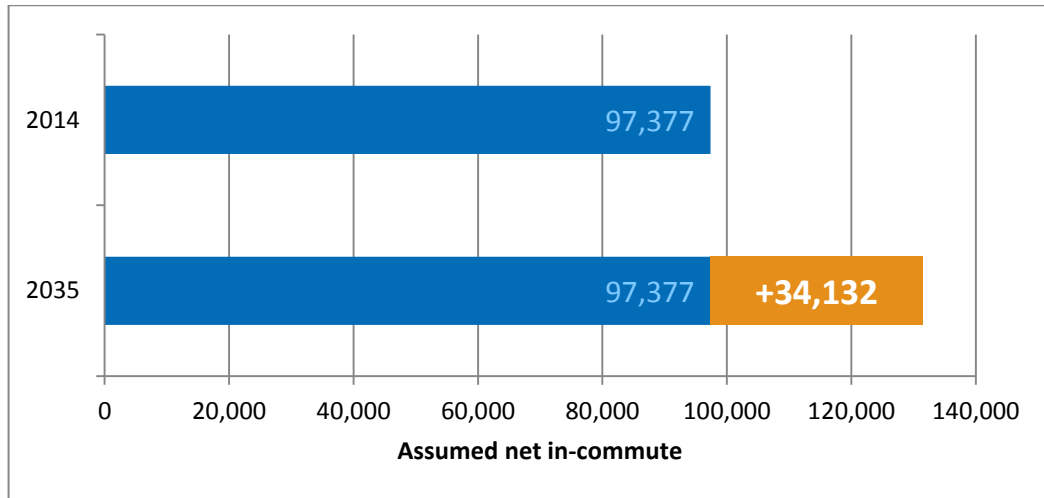
<sup>13</sup> Belfast City Council (2018) Belfast Local Development Plan: Draft Plan Strategy 2035, paragraph 5.0.3

<sup>14</sup> *Ibid*, paragraph 5.0.3

<sup>15</sup> Belfast City Council (2017) The Belfast Agenda: your future city – Belfast's community plan, p14

<sup>16</sup> Based on Edge Analytics' application of the 2011 Census commuting ratio to the modelled labour force in 2014

**Figure 3.1: Assumed Net In-Commute to Support Job Growth under HGI (2014/35)**



Source: Edge Analytics, 2019

- 3.15 The Housing Growth Options Report cautioned that ‘longer-term changes to the rate of the working population commuting in and out of Belfast will have implications for other areas of NI’<sup>17</sup>. It noted that:

“...a shift in commuting patterns could have negative implications for other parts of NI, if it is assumed that fewer residents commute elsewhere and a greater number commute to the city from elsewhere in NI, for example. The extent to which such changes in labour-force behaviour should be relied upon in planning for Belfast’s future economic growth and prosperity is therefore uncertain”<sup>18</sup>

- 3.16 This reflected recognition in England that a strategy of ‘recalling commuters’ is a ‘risky approach’ because:

“...the expected shift in commuting should be believable, and acceptable to the other local authorities affected by it. **Strategies of recalling commuters should not be adopted unilaterally;** they require cross-boundary agreement in line with the Duty to Cooperate”<sup>19</sup> (emphasis added)

- 3.17 The Housing Growth Options Report therefore favoured a ‘conservative’ approach that fixed commuting at the rate recorded by the 2011 Census<sup>20</sup>. This is a widely used assumption when planning for the housing needed to support future job growth in England; a similar approach has also been taken by Turley in Wales, which was recently

<sup>17</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, paragraph 4.41

<sup>18</sup> *Ibid*, paragraph 6.23

<sup>19</sup> Planning Advisory Service (2015) Objectively Assessed Need and Housing Targets: technical advice note, paragraph 8.16

<sup>20</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, paragraph 4.41

endorsed by the Inspectors examining the Swansea Local Development Plan<sup>21</sup>. In 2015, the issue was also considered in the High Courts, where it was recognised that:

*“For an authority to decide not to accommodate additional workers drawn to its area by increased employment opportunities is clearly a policy on decision which affects adjacent authorities who would be expected to house those additional commuting workers, unless there was evidence (accepted by the inspector or other planning decision-maker) that in fact the increase in employment in the borough would not increase the overall accommodation needs. In the absence of such evidence, or a development plan or any form of agreement between the authorities to the effect that adjacent authorities agree to increase their housing accommodation accordingly, the decision-maker is entitled to allow for provision to house those additional workers. **To decide not to do so on the basis that they will be accommodated in adjacent authorities is a policy on decision**”<sup>22</sup> (emphasis added)*

- 3.18 Though this decision was made in the context of England and Wales, the principle remains relevant in Belfast. In order to present an objective and evidence-based assessment, the “policy-off” assumption that the *rate* of commuting into Belfast will not change – applied in deriving the recommended growth scenario – is considered to be justified, albeit it is recognised in reality there will be variations in both the rate and absolute levels of commuting linked to the balance between jobs and housing in Belfast and its travel to work area. It is also noted that the use of a fixed ratio in the modelling informing the recommended growth scenario implicitly allows for a modest increase in the *absolute* level of net in-commuting, though, as illustrated by the above modelling, this is considerably lower than that implied as being required to service the identified job growth where housing was provided in line with the HGI.

### **Unemployment**

- 3.19 The recommended growth scenario assumes that the unemployment rate in Belfast falls from 6.2% to 3.9% between 2014 and 2035. Unemployment was therefore assumed, by 2035, to reach a lower rate than recorded in Belfast during any of the six years preceding the Housing Growth Options Report, or since<sup>23</sup>.
- 3.20 Edge Analytics’ further modelling allows the unemployment rate to fall further and faster to support new jobs as they are created, to compensate for a constrained housing supply linked to the HGI.
- 3.21 However, when applying prudent assumptions on other labour force behaviours, the unemployment rate would need to fall to zero by 2026 to keep pace with the Council’s job target. Capacity to support job growth thereafter from within the city’s latent labour-force (i.e. without new people) would then be limited, associated only with

<sup>21</sup> Turley (July 2017) 2017 Review of Swansea Local Development Plan Growth Strategy and Evidence Base; Inspectors’ Final Report published in January 2019 and Local Development Plan adopted in February 2019

<sup>22</sup> Oadby and Wigston Borough Council v Secretary of State for Communities and Local Government [2015] EWHC 1879 (Admin)

<sup>23</sup> Table 1 of Appendix 1 to the Housing Growth Options Report; the unemployment rate ranged between 6.1% and 11.8% during the six years of available data (2009 – 2014). It has since ranged between 5.1% and 6.5%, having increased in each year from 2015 to 2017

increasing economic activity rates of certain age groups; a separate labour force behaviour considered below.

- 3.22 As such, were housing provision to align with the HGI, a reliance upon falling unemployment in isolation – essentially assuming full utilisation and zero unemployment – could only support the creation of around 29,500 jobs in Belfast over the assessment period, rather than the 46,000 jobs targeted by the Council.
- 3.23 Furthermore, the prospect of zero unemployment is also remote and largely hypothetical. The structure of economies naturally creates a level of unemployment, through mismatched skills or because not all people want a job for example. Across the UK economy, the OBR currently estimates that this ‘*equilibrium*’ is reached when unemployment rates stand at 4%<sup>24</sup>. This provides important context in relying upon a still more pronounced fall in unemployment than allowed for under the recommended growth scenario.

#### **Double jobbing**

- 3.24 Edge Analytics’ modelling indicates that provision in line with the HGI would create a labour force that is around 28,500 persons short of that required to support 46,000 jobs by 2035, reflecting prudent assumptions on unemployment, economic activity and commuting. Under this sensitivity, there would be a greater reliance upon people having a second job to fill this shortfall.
- 3.25 While there is a core assumption that 3.2% of workers have a second job, this would be required to more than treble to circa 11% to avert the labour shortfall that would otherwise have occurred by 2035.
- 3.26 Such an increase should be considered in context. The Annual Population Survey (APS) has recorded the rate of double jobbing for fifteen years, from 2004 to 2018. In this time, at the regional level, the *maximum* rate of double jobbing recorded in any one year across the English regions, Scotland, Wales and Northern Ireland is 5.6%. Northern Ireland itself peaked at a lower 3.7% in 2017, and has seen a very stable picture throughout the historic period<sup>25</sup>.
- 3.27 This can also be considered in the context of local authorities, although the APS does not publish statistics for Local Government Districts in Northern Ireland. Elsewhere in the UK, the only local authorities to have typically seen double jobbing rates close to 11% of workers were the Orkney Islands (11.2%) and the Shetland Islands<sup>26</sup> (11.0%). Cambridge was the highest ranking city, with 6.3% of workers having a second job on average over the past fifteen years. This has moderated over the past five years (5.1%).
- 3.28 This indicates that, if housing provision aligns with the HGI, an unprecedented shift towards double jobbing would likely be required to support the creation of 46,000 jobs in Belfast.

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<sup>24</sup> Office for Budget Responsibility (March 2019) Economic and fiscal outlook, paragraph 1.18

<sup>25</sup> The annual rate of double jobbing in Northern Ireland has ranged between 2.9% and 3.7% over the past fifteen years

<sup>26</sup> Based on averages calculated over the period from 2004 to 2018.

### **Economic activity**

3.29 The recommended growth scenario allows for future changes in the economic activity rates recorded in Belfast at the 2011 Census, reflecting forecasts produced by the OBR. When age- and gender-specific rates are applied to a changing population, the proportion of all adults (16+) assumed to be economically active falls from 59% in 2014 to 56% in 2035. Such a decline in the *overall* economic activity rate was anticipated by the OBR ‘*as the proportion of older people in retirement increases*’, despite its allowance for higher levels of economic activity amongst older people<sup>27</sup>. It remains so today, with the latest OBR report envisaging:

*“...a participation rate that rises slightly in the near term before falling in the medium term, as the **rising share of the elderly outweighs the effect of increased participation by those nearing retirement**”<sup>28</sup> (emphasis added)*

3.30 Edge Analytics’ further modelling, produced to inform the analysis in this paper, removes any restriction of the change to economic activity rates. It thereby allows still higher levels of economic participation, surpassing the changes forecast by the OBR, to provide a labour force capable of supporting 46,000 jobs despite housing provision being constrained to the level set by the HGI.

3.31 With such limited housing provision, it is estimated that the overall economic activity rate (16+) would need to *increase* from 59% to 61% in order to support the creation of 46,000 jobs in Belfast, contrasting with the trend anticipated by the OBR.

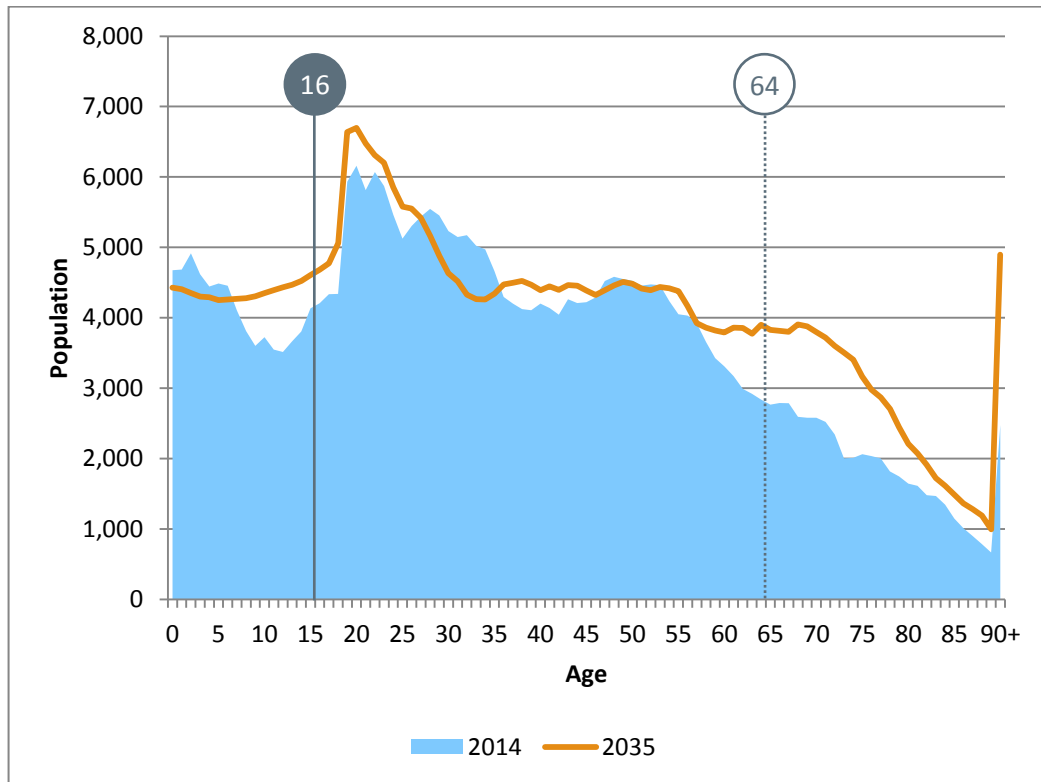
3.32 This would need to be achieved in the context of an increasingly ageing labour force in Belfast, as shown in the chart below which compares the population profile likely to result from the HGI in 2035 – based on Edge Analytics’ modelling – with that recorded in 2014.

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<sup>27</sup> Office for Budget Responsibility (2014) Fiscal Sustainability Report, paragraph 3.28

<sup>28</sup> Office for Budget Responsibility (March 2019) Economic and Fiscal Outlook, paragraph 3.17

**Figure 3.2: Comparing Population Profile in 2014 and 2035 where Housing Provision Constrained to HGI**



Source: Edge Analytics, 2019

- 3.33 Where housing provision is constrained to the HGI, the adult population of Belfast would be expected to shift towards older age cohorts. Under this scenario, the modelling suggests that growth in the number of residents aged 65 and over would account for 75% of all population growth over the period to 2035. Some 24% of adults (16+) would be aged 65 or above in 2035, compared to 18% in 2014. Circa 12% would be over 75, compared to 9% in 2014. An *overall* economic activity rate for those aged 16 and over will be influenced by its inclusion of these elderly cohorts.
- 3.34 Economic participation would need to rise – at a time when the population is increasingly and significantly ageing – to support the creation of 46,000 jobs in Belfast, if housing provision were constrained to the level set by the HGI. Whilst this cannot be judged as a situation that would definitely not occur, it is apparent that relying to a significant extent on older cohorts (65+) in the labour force to support the creation of new jobs can be construed as creating a potential risk to the economic future of the city.
- 3.35 The more conservative approach taken in the Housing Growth Options Report is considered to remain appropriate within this context, and has been found to provide an appropriate basis for plan-making elsewhere in the UK. The Housing Growth Options Report was, however, clear to identify that it represented a deliberately prudent approach, and the relative reaction of the labour force to the creation of new jobs will need to be considered through the monitoring and review of policies.

## Summary

- 3.36 This section has presented further modelling which shows that the HGI produced for Belfast would likely provide a labour force capable of supporting only 18,500 jobs over the period from 2014 to 2035; less than half the 46,000 jobs targeted by the Council.
- 3.37 This is based on prudent assumptions around the future behaviour of the labour force, which is recognised as being uncertain and has been subject to further testing within this section. This indicates that the HGI would only provide a labour force capable of supporting the creation of 46,000 jobs if:
- Belfast attracts a significantly larger **net in-commute** of workers from elsewhere in Northern Ireland than it does today, conflicting with the ambitions of the DPS and Belfast Agenda and resultantly impacting upon infrastructure and wider housing provision;
  - The **unemployment rate** falls to zero, *and* more substantive changes in other labour force behaviours occur. Such a fall in the unemployment rate could not, alone, support the creation of 46,000 jobs, when making prudent assumptions on other behaviours;
  - A marked shift towards **double jobbing** occurs, to reach levels that are unprecedented in cities or regions throughout the UK; or
  - **Economic activity** amongst the whole adult population (16+) rises at a time when this population is increasingly and significantly ageing, directly contrasting with the decline envisaged across the UK by the Office for Budget Responsibility (OBR).
- 3.38 The above indicates that marked changes in labour force behaviour would be necessary to support job growth in Belfast if its housing stock only grew to the level set by the HGI. As noted in the Housing Growth Options Report, relying on such changes threatens to undermine the ambition for job growth if they do not occur. The prudent assumptions applied in deriving the recommended growth scenario are considered to remain reasonable within this context.

## 4. Migration Flows Associated with the Recommended Growth Scenario

- 4.1 The modelling presented in the Housing Growth Options Report indicated that growing the labour force to support targeted job growth would require an increase in net migration to Belfast, relative to historic trends. This allows for additional working age people, in particular, to provide a labour force capable of supporting future job growth. Scenario 2 suggested that an average net inflow of circa 1,264 people would be required each year to support this job growth, over the period assessed<sup>29</sup> (2014 – 2035).
- 4.2 The Housing Growth Options Report highlighted that this would require a departure from historic migration trends, which have largely led to a net outflow from Belfast<sup>30</sup>. The city did have some success in retaining and indeed attracting people as its economy grew prior to the recession, however, which culminated in a net inflow of around 670 people in 2007/08<sup>31</sup>.
- 4.3 This general conclusion remains valid when reviewing the latest available population estimates produced by NISRA<sup>33</sup>. As shown in Figure 4.1 overleaf, there continues to be volatility in net migration flows to Belfast. Notably, there have now been *two* occasions since 2001 when net migration annually had a positive impact on the population of Belfast, with the data for 2014/15 also suggesting a year of positive net in-migration. Though not fully taken into account within this analysis, due to its publication at a late stage of the research process, a net inflow of around 400 people was also recorded in 2017/18. Such instances have been isolated, however, with inflows not having been sustained for more than one year or at the level that would likely be required throughout the plan period to support future job growth.

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<sup>29</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, Figure 6.3

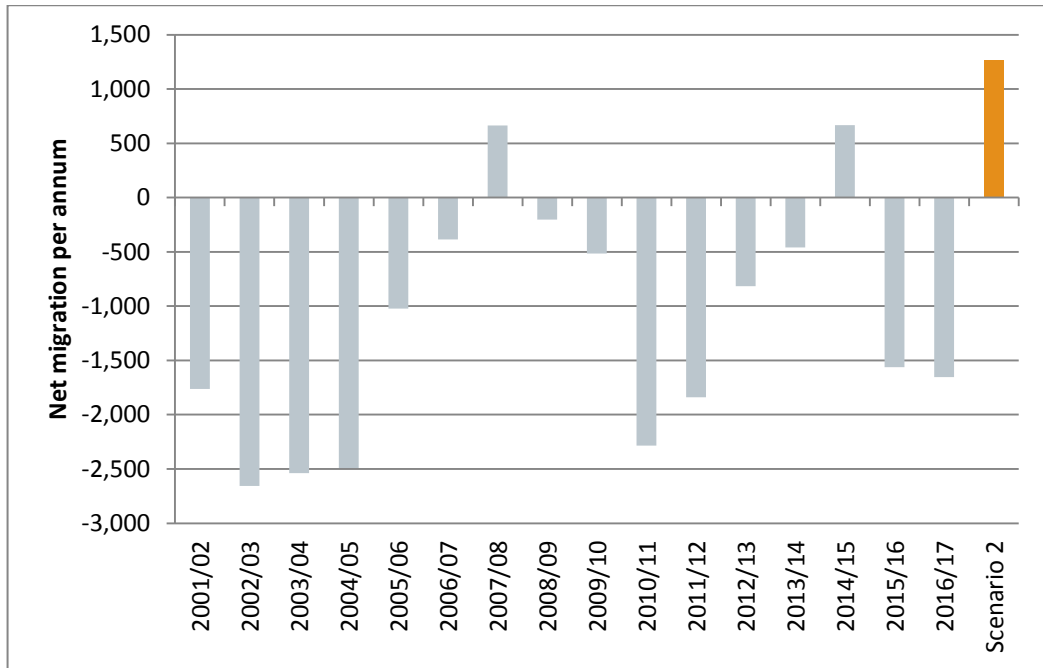
<sup>30</sup> *Ibid*, paragraph 6.14

<sup>31</sup> *Ibid*, paragraph 6.15

<sup>33</sup> The analysis in this section was completed prior to the release of 2018 mid-year population estimates on 26 June 2019, and as such focuses on trends up to 2017



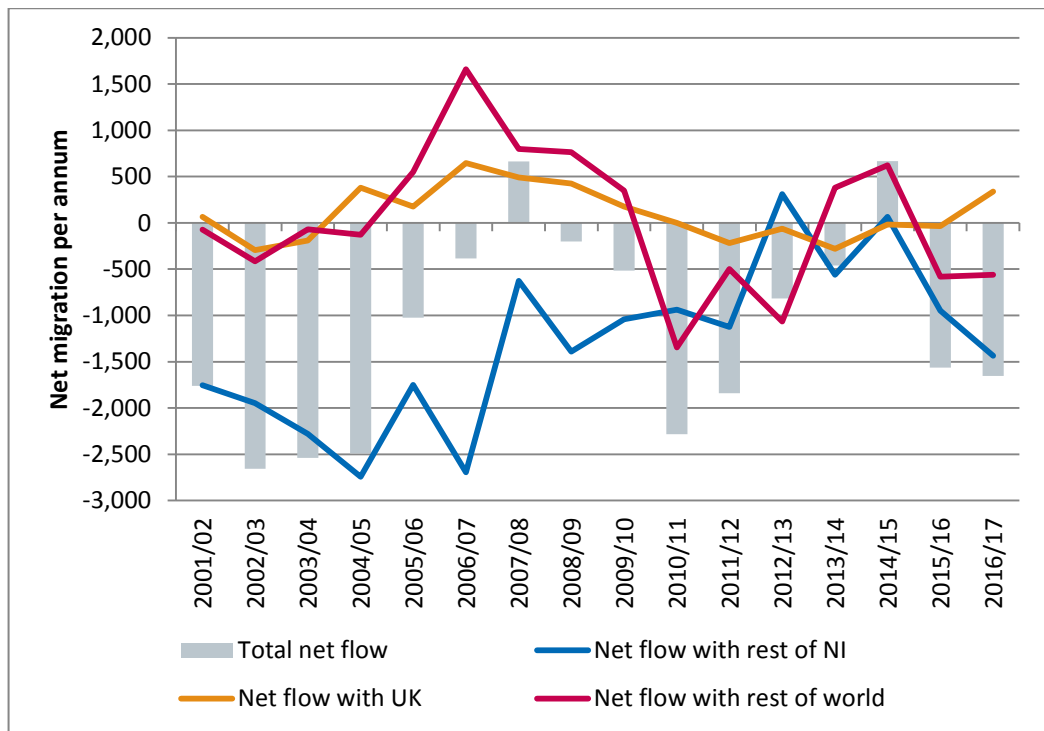
**Figure 4.1: Benchmarking Projected Migration to Belfast**



*Source: NISRA; Edge Analytics; Turley analysis*

- 4.4 Net migration into Belfast is driven by flows of people within Northern Ireland, flows to/from the rest of the UK and flows to/from the rest of the world, which includes the Republic of Ireland. Historic net flows can therefore be broken down to reveal how these different relationships have influenced the overall flow into Belfast, as shown in the chart overleaf.

**Figure 4.2: Components of Historic Net Migration to Belfast (2001-17)**

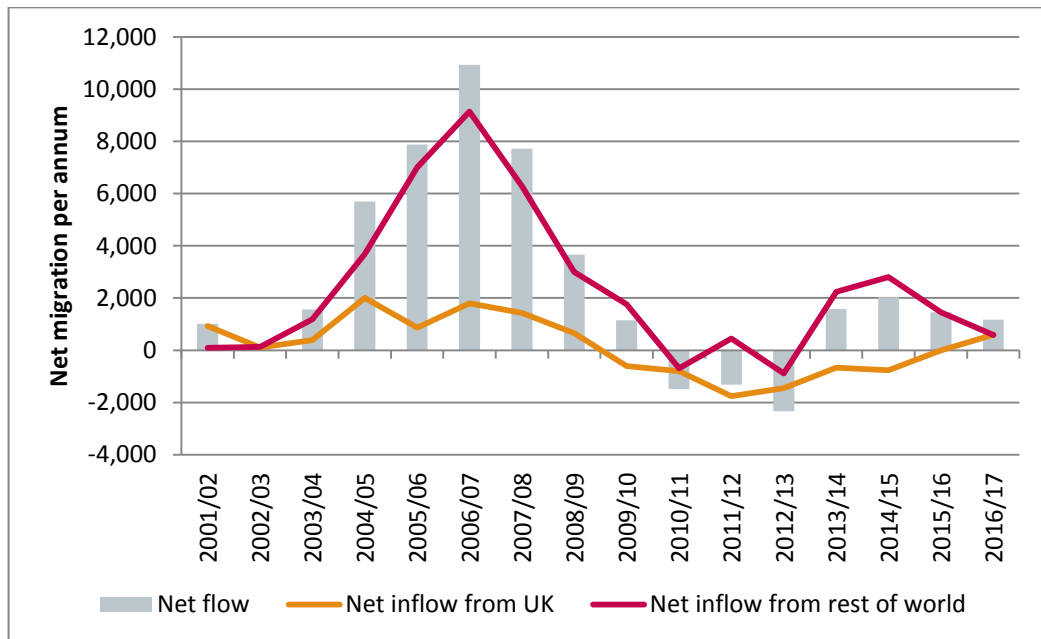


Source: NISRA; Turley analysis

- 4.5 Internal moves within Northern Ireland – shown in blue – have historically tended to have a negative effect on the population of Belfast, with more people leaving the city than arriving from other districts each year. The scale of the net outflow has, however, slightly narrowed over the past decade, with a net inflow into the city on two occasions.
- 4.6 Separately, and shown in orange, Belfast has typically received a net inflow of people from the rest of the UK, which peaked in 2006/07. While this subsequently slowed, and began to reverse such that Belfast started to *lose* people to the rest of the UK annually for a sustained period (2011 – 2016), there have been signs of an improving trend over recent years.
- 4.7 Finally, the net inflow from the rest of the world – shown in red – has been more volatile, with an inflow of over 1,500 people in 2006/07 but a comparably sized outflow only four years later (2010/11). This subsequently recovered, but fell again in the last two years shown above. Though not fully taken account within this analysis, the net inflow to Belfast from the rest of the world increased to around 900 persons in 2017/18; the highest in a decade.
- 4.8 The relationship between Belfast and the rest of the UK, and the rest of the world, can be helpfully considered in the context of macro trends across Northern Ireland as a whole, which notably reveals comparable trends to those shown for Belfast. As shown in the following chart, the net inflow to Northern Ireland from the rest of the world similarly peaked in 2006/07, linked to the accession of eight central and eastern

European countries to the EU<sup>34</sup>. This subsequently fell but, as in Belfast, has recovered from its post-recession lows. The net inflow from the UK is also recovering, having fallen at the onset of the recession. Collectively, Northern Ireland has received a net inflow of migrants in all but three of the last sixteen years, with outflows only recorded in the aftermath of the recession (2010 – 2013). This has continued in the last year, with a net inflow of around 4,100 people in 2017/18; the largest for ten years.

**Figure 4.3: Components of Historic Net Migration to Northern Ireland (2001-17)**



Source: NISRA; Turley analysis

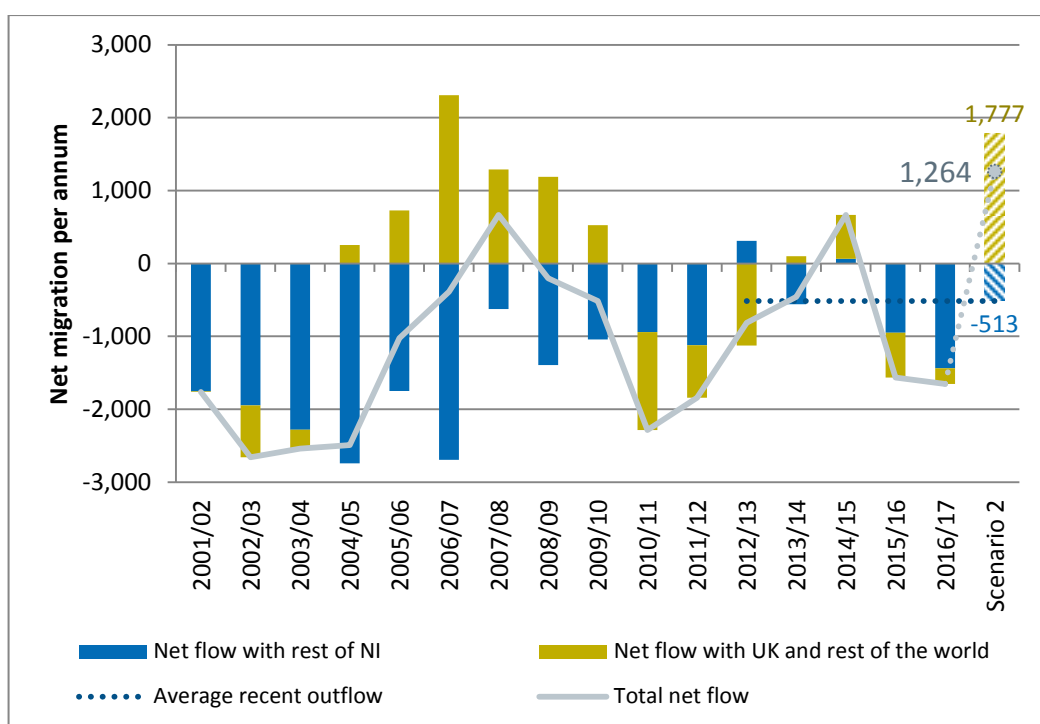
- 4.9 This level of consistency between trends recorded in Belfast and Northern Ireland is somewhat unsurprising, and reflects both the comparative size of the city but more importantly its international appeal, recognising the city's business base and its universities. Since 2001, over a quarter (26%) of all moves to Northern Ireland, from the UK or elsewhere, were to Belfast. A slightly higher proportion (28%) of moves out of Northern Ireland originated in the city. This is a greater influence than would be expected, based on its share of the population<sup>35</sup> (c.18-19%).
- 4.10 This provides important context in considering how Belfast could achieve and maintain the net inflow required annually to grow its labour force and support targeted job growth. As outlined below, such an inflow could conceivably be realised without affecting the established trend that has seen other districts continue to receive a net inflow from Belfast over recent years, by attracting a stronger net inflow of people from outside of Northern Ireland.

<sup>34</sup> Northern Ireland Assembly (2011) Research and Information Service Research Paper – Migration in Northern Ireland: a demographic perspective

<sup>35</sup> A range is presented to reflect change in Belfast's share of the Northern Ireland population between 2001 (19%) and 2017 (18%)

4.11 Over the latest five year period for which data is currently available (2012-17) there has been an average net outflow of 513 persons from Belfast to other districts each year. In such circumstances, an annual net inflow of 1,777 persons from *other* areas, beyond Northern Ireland, would be required to offset this outflow and achieve the overall inflow envisaged by the recommended growth scenario (1,264pa). As shown in the following chart, such an inflow from the UK and rest of the world is not unprecedented or markedly disproportionate to the more positive economic period prior to the recession. It is acknowledged, however, that sustaining this net inflow would represent a departure from longer-term historic trends for the city, albeit with this also reflecting the underlying assumption that the city would see the sustained creation of a significant number of new jobs.

**Figure 4.4: Illustration of Higher Migration under Recommended Growth Scenario**



Source: NISRA; Edge Analytics; Turley analysis

4.12 Equally, there is further evidence to suggest that Belfast could achieve a net inflow of circa 1,777 people from outside Northern Ireland, where consideration is given – **for illustrative purposes only** – to the absolute size of the inflows and outflows that underpin historic trends of net migration:

- Since 2001, Belfast has typically attracted an average of 6,285 people each year from outside Northern Ireland, although this increases to circa **7,120 people** when an upper quartile figure is calculated. While this incorporates a degree of optimism, it is proportionate to the recent average over the past five years (6,971pa; 2012-17); and
- Since 2001, an average of 6,161 Belfast residents have left Northern Ireland each year. When taking a similarly optimistic view by calculating the *lower* quartile,

thereby assuming a more effective retention of existing residents that would otherwise leave Northern Ireland, this falls to circa **5,351 people**.

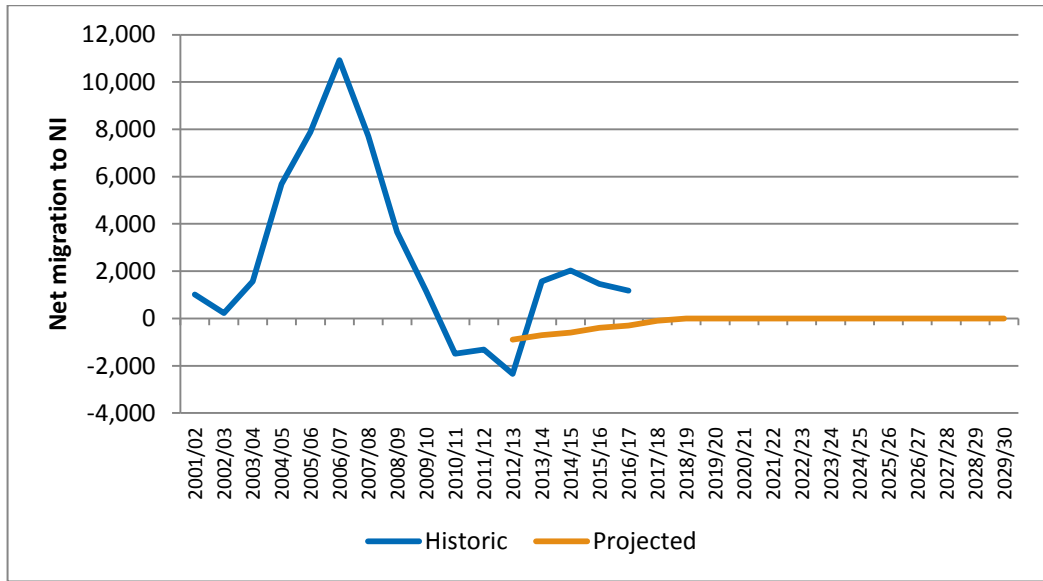
- 4.13 In combination, therefore, a relatively large inflow from beyond Northern Ireland – which effectively continues the recent trend – and a relatively small outflow could conceivably generate a net inflow of **1,769 people** into Belfast each year. While this is solely established for illustrative purposes, this almost precisely aligns with the inflow required from such areas to grow the labour force, when holding the net outflow to other districts fixed at its current rate.
- 4.14 Such a prospect was described within the Housing Growth Options Report, which recognised *‘the role of Belfast within the NI economy and housing market’* and the ability of the recommended growth scenario to generate *‘a wider positive effect at the macro NI level’* by:
- “...restricting the outflow of people from NI to overseas for employment, for example...The creation of employment opportunities can also enable the retention of students coming to Belfast to study from overseas who have otherwise historically moved away from NI following graduation”<sup>36</sup>*
- 4.15 The principle of departing from the HGI to generate such benefits is considered to be reasonable within this context, and indeed would be necessary given the assumptions on net migration within the 2012-based population and household projections that underpin the latest HGIs. Although they do not distinguish between internal and international migration at the district level, they are predicated upon the inflow of migrants to Northern Ireland being increasingly balanced with the outflow<sup>37</sup>. Net migration is therefore assumed to have no impact on the population from 2018 onwards, yet this assumption appears particularly conservative when considered in the context of recent trends as shown in the following chart.

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<sup>36</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, paragraph 6.32

<sup>37</sup> NISRA (2013) Statistical Report – 2012-based population projections, p3

**Figure 4.5: Net Migration to Northern Ireland – historic and projected under HGIs**



Source: NISRA; Turley analysis

- 4.16 This indicates that there is a level of headroom beyond the HGIs that could support the higher levels of net migration that continue to be recorded across Northern Ireland. Surpassing the HGIs would indeed contribute towards attracting and retaining people within Northern Ireland. Given the role and influence of Belfast, and its economic growth plans, it is reasonable to expect the city to play such a role within this context.

### Summary

- 4.17 The Housing Growth Options Report indicated that growing the labour force to support targeted job growth would require an increase in net migration to Belfast. While a departure from past trends, such an outcome could conceivably be achieved without affecting the established trend that has seen other districts receive a continued net inflow from Belfast over recent years.
- 4.18 With the city planning for continued economic growth, it would be reasonable to expect such an outflow from Belfast to be offset by a stronger net inflow of people from outside of Northern Ireland, reflecting its regional role and based on consideration of the inflows and outflows that have been recorded historically.
- 4.19 A departure from the HGI appears reasonable and appropriate within this context, given its highly conservative assumptions on net migration into Northern Ireland that have demonstrably understated the flows actually recorded in subsequent years.

## 5. Understanding the Implications of Housing Market Areas

- 5.1 In responding to consultation on the DPS, a small number of submissions expressed concern that the growth strategy has not been considered within the context of the wider housing market area (HMA) within which Belfast is located.
- 5.2 The Housing Growth Options Report recognised the spatial linkages that Belfast has with other adjacent authorities, through its consideration of migration relationships for example<sup>38</sup>. It also acknowledged the importance of maintaining dialogue with other districts that share strong labour force relationships with the city, to ensure that assumptions relating to job growth and housing provision do not have wider implications<sup>39</sup>.
- 5.3 In its consideration of submissions to the DPS consultation, the Council has requested further advice on the purpose of defining HMAs, and their relevance when plans are being developed for individual districts throughout Northern Ireland. This is intended to reflect experiences observed elsewhere in the UK.

### Housing market areas in Northern Ireland

- 5.4 The Northern Ireland Housing Executive (NIHE) has recently sought to reassess the geography of housing market areas throughout Northern Ireland, though did not refer to these geographies within its response to the DPS nor raise concern around the approach taken by the Council to date. Its research was completed almost two years after the Housing Growth Options Report was produced.
- 5.5 The research was intended to provide *'an updated set of functionally-based housing market area boundaries'*<sup>40</sup>, updating earlier definitions *'to reflect recent residential movement patterns'* and undertaking a comparison with the geographies of the eleven Local Government Districts before offering:

*"...advice on a pragmatic approach to future analysis and reporting of local housing systems, taking into account resource and data availability"*<sup>41</sup>

- 5.6 The research inferred from the Strategic Planning Policy Statement (SPPS) that:

*"...in developing their Local Development Plans and identifying suitable sites for housing, local authorities need an understanding of the broad HMA within which their area is located. More recently, the NI Chief Planner (2016) has stressed the importance of collaboration between local authorities and reiterated that the Independent*

<sup>38</sup> Turley (2016) Housing Growth Options Report – Belfast City Population and Housing Growth Study, Figures 3.6 and 3.7

<sup>39</sup> *Ibid*, paragraph 7.20

<sup>40</sup> Newhaven Research (2018) Mapping Northern Ireland's Housing Market Areas, p9

<sup>41</sup> *Ibid*, p9

*Examination of Local Plans will seek to ensure cross-boundary issues have been addressed*<sup>42</sup>

5.7 Based on a strict interpretation of this guidance, it is understood that local authorities are required to demonstrate ‘*an understanding*’ of their housing market area geography, collaboratively discussing cross-boundary issues with other districts where housing market relationships are identified. This is consistent with the general requirement to consult with neighbouring districts in preparing Local Development Plans<sup>43</sup>.

5.8 Notwithstanding, the SPSS is explicit that the Plan Strategy itself:

*“...must be prepared for the council area and must set out the council’s objectives in relation to the development and use of land in its district”*<sup>44</sup> (emphases added)

### **Housing market areas in plan-making elsewhere in the UK**

5.9 It is important to note that the SPSS and its suite of underlying practice notes make no explicit reference to “housing market areas”. This differs from the approach that has been in place in England over recent years, with the 2012 National Planning Policy Framework (NPPF) explicitly requiring local 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”*<sup>45</sup>

5.10 Within this context, local authorities were required to ‘*assess their development needs with the other local authorities in the relevant housing market area*’, albeit with recognition that this may not always be practical:

*“Where Local Plans are at different stages of production, local planning authorities can build upon the existing evidence base of partner local authorities in their housing market area but should co-ordinate future housing reviews so they take place at the same time”*<sup>46</sup> (emphasis added)

5.11 In our experience, whilst it has not been uncommon for housing market evidence to be prepared across wider HMAs in England, there are also numerous examples where individual authorities have commissioned studies to calculate needs for their administrative area alone. This has in many instances reflected the different timetables being followed in plan preparation, and the regular release of new datasets which have required timely updates and reviews to understand the implications for emerging planning policies.

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<sup>42</sup> *Ibid*, p16

<sup>43</sup> Planning Act (Northern Ireland) 2011, chapter 25; section 3(5)

<sup>44</sup> Department of the Environment (2015) Strategic Planning Policy Statement for Northern Ireland, paragraph 5.22

<sup>45</sup> Department for Communities and Local Government (2012) National Planning Policy Framework, paragraph 47

<sup>46</sup> Planning Practice Guidance Reference ID 2a-007-20150320



5.12 Through the development and publication of the revised NPPF in July 2018, there has however been a shift of ‘*focus away from housing market areas*’ in England<sup>47</sup>. The revised NPPF no longer refers to housing market areas, though there remains acknowledgement in the associated Planning Practice Guidance (PPG) that such areas may provide an appropriate basis for statements of common ground on cross-boundary matters of strategic importance<sup>48</sup>. There remains a legal duty upon local planning authorities to co-operate on these strategic matters<sup>49</sup>, though there has previously been clear acknowledgement that this is ‘*not a duty to agree*’<sup>50</sup>.

5.13 Even under the previous system, there was frequent recognition of the difficulties involved in relating often complex housing market area geographies to plan-making areas. The Inspector examining the Stratford-on-Avon Local Plan, for example, was presented with evidence at both local authority and HMA level, and stated that:

*“...at some point it is necessary to focus on the District rather than the HMA and I note that recent case law<sup>51</sup> emphasises that the primary duty of the LPA is to assess the needs of the LPA’s area”<sup>52</sup>*

5.14 Reflecting on such judgements, and its review of best practice, the Planning Advisory Service noted that the:

*“...imperfections of HMA geographies need not be an obstacle to sound planning, because joint working and the Duty to Cooperate do not stop at the HMA boundary. The NPPF says that plans should cater for cross-boundary unmet need whenever this is reasonable and sustainable, and Inspectors have confirmed that this includes imports from beyond the HMA, including both boundary-hopping and long-distance overspill”<sup>53</sup>* (emphasis added)

## Implications

5.15 Reflecting on the above, it is reasonable to conclude that the existence and acknowledgement of a complex housing market area centred on Belfast – which does not adhere to administrative boundaries – does not preclude the development of local planning policies for the district itself.

5.16 The Council is explicitly required to plan for its council area only, though should continue to collaborate with neighbouring districts with a particular focus on those areas with which it shares the strongest housing market relationships. These relationships will reflect key drivers of the housing market including, but not limited to, migration and commuting flows and an understanding of house price geographies.

<sup>47</sup> Department for Communities and Local Government (2017) Planning for the right homes in the right places: consultation proposals, paragraph 68

<sup>48</sup> Planning Practice Guidance Reference ID 61-017-20190315

<sup>49</sup> Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework, paragraph 24

<sup>50</sup> Planning Practice Guidance Reference ID 9-001-20140306

<sup>51</sup> Satnam Millennium Limited v Warrington Borough Council [2015] EWHC 370 (Admin) paragraph 25(i)

<sup>52</sup> Examination of the Stratford-on-Avon Core Strategy Inspector’s Interim Conclusions (March 2015) paragraph 20

<sup>53</sup> Planning Advisory Service (2015) Objectively Assessed Need and Housing Targets: technical advice note, paragraph 5.30

## **Appendix 1: Scenario Modelling by Edge Analytics**

# Belfast Scenario Modelling

## Requirements

- 1.1 In 2016, Edge Analytics provided Turley with a range of demographic and jobs-led scenario for Belfast. The demographic forecasts and analysis produced by Edge Analytics, informed Turley's Housing Growth Options Report (published in October 2016) for Belfast City Council. This later informed the Council's Draft Plan Strategy (DPS), identifying a housing growth target of +37,000 (c. 1,762 pa) over the 2014–2035 plan period. The housing growth target was underpinned by the '*Jobs-led (Baseline) UR SENS*' scenario modelled in 2016, which estimated employment growth of +45,000 (+2,143 pa) over the plan period.
- 1.2 Under the Housing Growth Indicator (HGI), the Department for Infrastructure (DfI) has identified an annual housing growth target of +1,054 for Belfast. To consider the potential labour force implications of the lower HGI target (1,054 dpa) whilst still seeking to achieve the Council's employment growth target (+2,143 pa), Edge Analytics has been commissioned to undertake additional scenario modelling.
- 1.3 A 'dwelling-led' configuration of the POPGROUP model has been developed, using historical population to 2014, with the annual HGI dwelling growth target of +1,054 applied thereafter.
- 1.4 In seeking to achieve the target employment growth (+2,143 pa) and consider the extent to which labour force behaviours would be affected, alternative assumptions on economic activity rates, unemployment rates and commuting have been applied:
  - **Dwelling-led CORE:** All economic assumptions are consistent with those applied in the '*Jobs-led (Baseline) UR SENS*' scenario developed in 2016.
  - **Dwelling-led EA:** Economic activity (EA) rates are adjusted to meet employment growth target. Commuting ratio and unemployment rate assumptions are consistent with those applied in the '*Jobs-led (Baseline) UR SENS*' scenario developed in 2016.
  - **Dwelling-led UR:** Unemployment rate (UR) is adjusted to meet employment growth target. Economic activity rates and commuting ratio assumptions are consistent with those applied in the '*Jobs-led (Baseline) UR SENS*' scenario developed in 2016.
  - **Dwelling-led CR:** Commuting ratio (CR) is adjusted to meet employment growth target. Economic activity rates and unemployment rate assumptions are consistent with those applied in the '*Jobs-led (Baseline) UR SENS*' scenario developed in 2016.

## Approach

- 1.5 In line with the previous 2016 modelling, historical population is used to 2014 with the annual change in dwellings from the HGI (+1,054 dpa) applied thereafter. Fertility, mortality and migration assumptions are consistent with the previous ‘Jobs-led (Baseline) UR SENS’ scenario analysis. The relationship between population and dwelling growth is estimated using assumptions derived from NISRA’s 2012-based household projection model and a 2011 Census vacancy rate of 6.6% for Belfast (in line with the 2016 modelling).
- 1.6 Under the **Dwelling-led (HGI) CORE** scenario, economic activity rates, unemployment rate and commuting ratio assumptions are consistent with those applied in the 2016 ‘Jobs-led (Baseline) UR SENS’ scenario.

## Economic Activity Rates

- 1.7 **Economic activity rates** determine the proportion of the population that is actively engaged in the labour force; either employed or unemployed. Under the **Dwelling-led (HGI) CORE** scenario, Belfast’s 2011 Census economic activity rates have been adjusted in line with the Office for Budget Responsibility’s (OBR’s) 2014 forecast of long-term changes to age specific rates of labour participation. Over the 2014–2035 plan period, the aggregate (16–75+) economic activity rates decline from 59% to 56% (Figure 1).
- 1.8 To achieve the employment growth target of +2,143 pa, the economic activity rates have been adjusted by age group and sex (**Dwelling-led (HGI) EA**). Over the 2014–2035 plan period, aggregate economic activity rates 16–75+ increase from 59% to 61% (Figure 1), with all the unemployment rate and commuting ratio assumptions consistent with the **Dwelling-led (HGI) CORE** scenario.

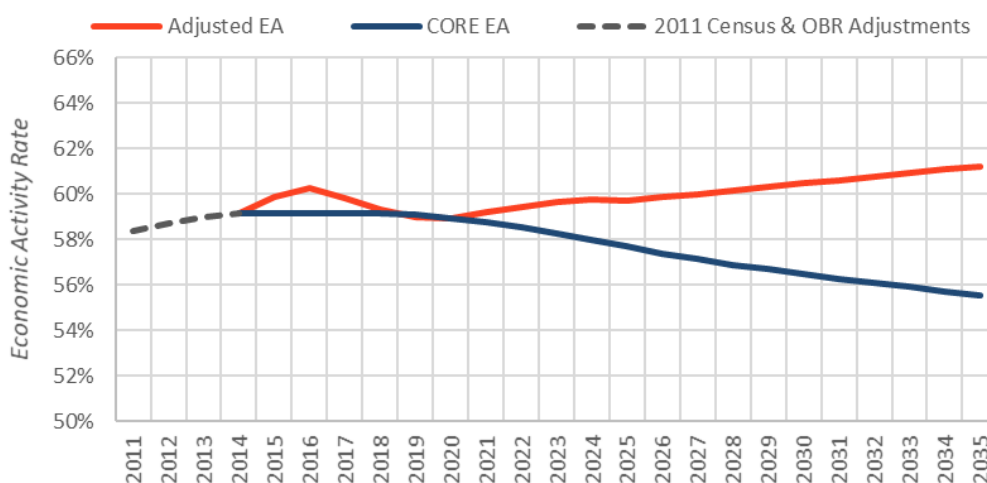


Figure 1: Census, Core and Adjusted economic activity rate assumptions 2014–2035<sup>1</sup>

<sup>1</sup> 2011 Census economic activity rate, with adjustments applied thereafter (including the 2012–2014 historical period).

## Unemployment Rates

- 1.9 The **unemployment rate** determines the proportion of the labour force that is unemployed (and as result, the proportion that is employed). Under the **Dwelling-led (HGI) CORE** scenario, the unemployment rate reduces from 6.2% in 2014 to 3.9% by 2035 (Figure 2).
- 1.10 In seeking to achieve the employment growth target of +2,143 pa (2014/15–2034/35), the unemployment rate has been adjusted (**Dwelling-led (HGI) UR**). Assuming all other economic assumptions are consistent with the **Dwelling-led (HGI) CORE** scenario, the unemployment rate would fall below 0% (i.e. the scale of the adjustment would be larger than the size of the labour force). Therefore, under the **Dwelling-led (HGI) UR** scenario, the unemployment rate reduces from 6.2% in 2014 to 0% in 2026, remaining fixed thereafter (Figure 2).

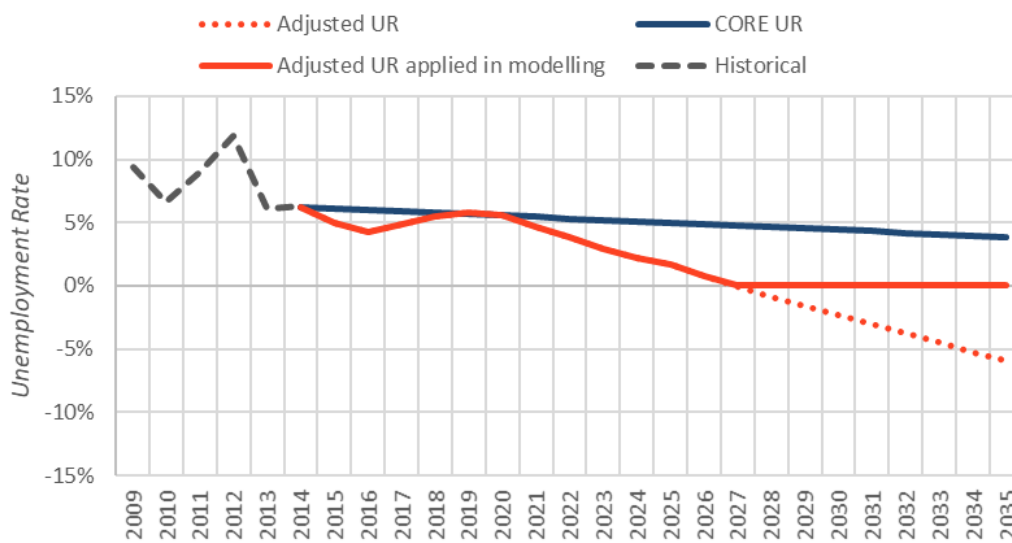


Figure 2: Historical, Core and Adjusted unemployment rate assumptions 2014–2035

## Commuting Ratio

- 1.11 The **commuting ratio** is the balance between local employment and the size of the resident workforce. A commuting ratio greater than 1.00 indicates a net out-commute (i.e. the number of resident workers in an area is greater than the level of employment). A commuting ratio less than 1.00 indicates a net in-commute (i.e. the employment total is greater than the number of resident workers).
- 1.12 In the **Dwelling-led (HGI) CORE** scenario, the 2011 Census commuting ratio of 0.61 for Belfast has been applied, fixed over the 2014–2035 plan period (Figure 3). To achieve the employment growth target of +2,143 pa whilst assuming all other economic assumptions are consistent with the **Dwelling-led (HGI) CORE** scenario, the commuting ratio would need to reduce over the plan period, from 0.61 in 2014 to 0.55 in 2035 (**Dwelling-led (HGI) CR**) (Figure 3).

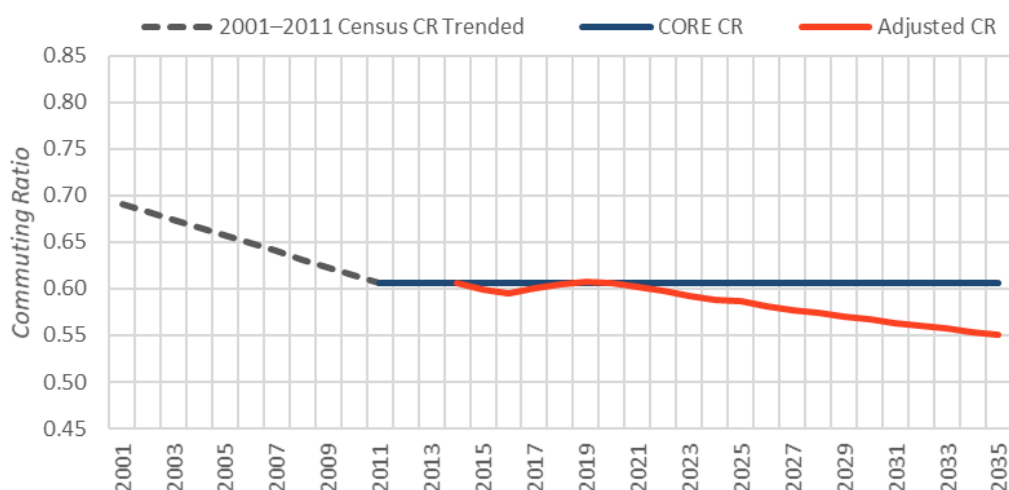


Figure 3: 2001, 2011 Census, Core and Adjusted commuting ratio assumptions 2014–2035<sup>2</sup>

1.13 The economic assumptions applied in each of the Dwelling-led scenarios are summarised in Table 1 below. The Dwelling-led (HGI) scenario outcomes are summarised for the 2014–2035 plan period in Table 2, in context of the ‘Jobs-led (Baseline) UR SENS’ scenario previously modelled in 2016.

Table 1: Summary of Economic Assumptions

Scenario	Economic Activity Rates	Unemployment Rate	Commuting Ratio
Dwelling-led (HGI) CORE	2011 Census economic activity rates by age group and sex (16–75+), with adjustments made to all age groups, in line with the Office for Budget Responsibility (OBR) 2014 labour market analysis. Over the 2014–2035 period, the aggregate economic activity rate reduces from 59% to 56%.	The unemployment rate reduces from 6.2% in 2014 to 3.9% 2035.	2011 Census commuting ratio of 0.61 applied throughout the 2014–2035 plan period.
Dwelling-led (HGI) EA	Over the 2014–2035 period, adjustments are made to the CORE economic activity rate to support the employment growth target. Over the 2014–2035 period, the aggregate economic activity rate increases from 59% to 61%.	<b>CORE</b>	<b>CORE</b>

<sup>2</sup> In the modelling, the 2011 Census commuting ratio was applied throughout the historical period and from 2014 onward.

Scenario	Economic Activity Rates	Unemployment Rate	Commuting Ratio
Dwelling-led (HGI) UR	<i>CORE</i>	The unemployment rate reduces to support the target employment growth. Over the 2014–2026 period, the unemployment rate reduces from 6.2% to 0%, fixed thereafter.	<i>CORE</i>
Dwelling-led (HGI) CR	<i>CORE</i>	<i>CORE</i>	Over the 2014–2035 period, the commuting ratio reduces from 0.61 to 0.55 to support the employment growth target.

## Scenario Summary

Table 2: Dwelling-led (HGI) and Jobs-led (Baseline) UR SENS scenario outcomes 2014–2035

Scenario	Change 2014–2035				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Employment
<i>Jobs-led (Baseline) UR SENS</i>	<i>65,892</i>	<i>19.6%</i>	<i>34,501</i>	<i>24.2%</i>	<i>1,264</i>	<i>1,759</i>	<i>2,143</i>
<i>Dwelling-led (HGI) CORE</i>	<i>34,528</i>	<i>10.3%</i>	<i>20,672</i>	<i>14.5%</i>	<i>-32</i>	<i>1,054</i>	<i>853</i>
Dwelling-led (HGI) EA	34,528	10.3%	20,672	14.5%	-32	1,054	2,143
Dwelling-led (HGI) UR	34,528	10.3%	20,672	14.5%	-32	1,054	1,361
Dwelling-led (HGI) CR	34,528	10.3%	20,672	14.5%	-32	1,054	2,143

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