Strategic Housing Market Assessment
South Essex

May 2016

Turley
Economics

Contents

Final Report
May 2016

Executive Summary

1.   Turley – in partnership with specialist demographic consultancy Edge Analytics – were commissioned by the Thames Gateway South Essex (TGSE) authorities[1] of Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock to prepare a Strategic Housing Market Assessment (SHMA).

2.   The assessment will form an important part of the evidence base used to set future housing requirements in each of the TGSE authorities as respective Local Plans are developed, and has been prepared in accordance with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).

Defining the Housing Market Area

3.   The PPG highlights the importance of considering housing needs across functional housing market area (HMA) geographies, acknowledging that this often extends beyond local authority boundaries. The SHMA analyses a range of spatial indicators – in line with the PPG – to determine the extent to which TGSE represents a single HMA, and the evidence strongly indicates that TGSE continues to represent an appropriate HMA across which needs can be robustly assessed. There is a containment of moves within this geography, while there is a broad commonality in house prices, with a marked distinction compared to adjacent areas. There is also a strong level of containment with regards to commuting, although London does clearly represent an important place of work for residents.

Objective Assessment of Need

4.   In objectively assessing housing needs, a stepped methodology should be followed in order to comply with the NPPF and PPG. The PPG identifies the latest 2012-based sub-national household projections (SNHP) as the 'starting point' for the estimate of overall need, which would indicate a need for approximately 2,886 dwellings per annum over the period from 2014 to 2037, allowing for vacancy.

5.   However, it is noted within the PPG that the level of projected need implied by the 'starting point' should be adjusted to reflect:

   •   Local demographic factors and evidence, recognising that the household projections may require adjustment to reflect factors which are not captured in past trends;

   •   The need to support economic growth based upon an assessment of likely future job growth; and

   •   The need to take account of appropriate market signals, including market indicators of the balance between the demand for and supply of dwellings and consideration of the calculated need for affordable housing.

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[1] Unless otherwise specified, references to Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock relate to the whole administrative area of each local authority

6. The level of population growth projected under the 2012-based sub-national population projections (SNPP) – which underpin the household projections – has been analysed in detail within the SHMA, in the context of longer-term and more up-to-date population evidence. Following this analysis, Edge Analytics conclude that the 2012 SNPP represents a robust demographic starting point from which to consider housing needs across TGSE.

7. The analysis has highlighted the important relationship between London and TGSE authorities, with evidence of higher levels of population growth in Basildon and Thurrock in particular over more recent years which has coincided with an increased flow from London. Furthermore, evidence prepared to underpin the Further Alterations to the London Plan (FALP) assumes that the outflow of migrants from London to neighbouring authorities will increase beyond the level implied by the 2012 SNPP, in order to more closely reflect pre-recession trends. It is considered appropriate to uplift the assumed level of net migration to TGSE over the projection period to 2037, generating a need for approximately **3,070 dwellings per annum** to reflect a greater level of population growth as a result of anticipated growth pressures from London.

8. The PPG is also clear in expecting local authorities to take employment trends into account when considering housing needs, by considering the scale of labour force growth required to support likely job creation over the plan period. It is noted that the Councils are in the process of commissioning additional evidence in the form of an Economic Development Needs Assessment (EDNA) which will assess likely future job growth in TGSE alongside implied labour-force behaviours. In the absence of this evidence, this report concludes that a job growth of 0.7% per annum is reflective of a reasonable likely level of growth over the projection period. This is based upon an appraisal of historic trends and the forecasts prepared by two reputable forecasting houses.

9. The demographic scenarios developed in this assessment – in particular when there is an uplift to allow for increased flows from London – would generate a sizeable growth in the population of TGSE, and subsequently grow the labour force. The analysis indicates that the elevated growth in population factoring in the London adjustment could support this identified level of 0.7% job growth across TGSE. The scale of associated labour force growth is, however, dependent upon a range of factors, including commuting patterns, unemployment and future changes to economic activity rates.

10. There is considerable uncertainty around how labour-force behaviours will change in the future, and the modelling which has informed this assessment indicates that a modest further uplift to housing provision could on this basis be required to support the level of job growth forecast in TGSE. On this basis it is recommended that a further uplift of 460 dwellings per annum to **3,530 dwellings per annum** could be reasonably required to support the identified future level of job growth in the area. This takes account of a range of modelling sensitivities applied to ensure a level of flexibility in supporting likely job growth.

11. Analysis of market signals within the SHMA confirms that whilst TGSE is – in absolute terms – an area with comparatively low house prices when compared with many neighbouring areas, it is apparent that it demonstrates symptoms of worsening market

signals, in the context of the PPG. The picture is by no means consistent across the market signals, nor does the area as a whole – or any one authority – demonstrate a significant or consistent level of market imbalance when compared in particular against national benchmarks. Unlike many areas in and around London and across the southern regions, there are comparatively large parts where prices and rents are relatively low and where there is evidence of a demand for housing as a result.

12. Overall, the evidence points towards affordability pressures across the HMA, on which basis it is considered appropriate to apply an upward adjustment to the implied housing need from the household projections. The analysis in the SHMA has identified within the household projections an assumption – in converting the population into households – that there will be only a limited improvement in household formation rates amongst younger people. This follows a historic period in which the household formation rates of younger households have fallen. This has coincided with a period of worsening market conditions, reflected in the market signals and increasing affordability issues. In order to positively respond to the moderate worsening in market conditions – which may have constrained the formation of new households – it is considered appropriate to apply a positive adjustment to household formation rates amongst younger age groups. This reverses the decline in household formation rates amongst younger age groups – where this has not already been anticipated within the 2012 SNHP – to reach a level last seen in 2001. At this point, the ratio between house prices and earnings was at the long-term average level, and a return to this set of market conditions implies a healthier and more sustainable housing market. This adjustment when applied to the adjusted projections of population growth to factor in the impact of London and to ensure that employment growth is supported elevates the need for housing by a further 7%.

13. Collectively this has led to the identification of a range of **objectively assessed need for between 3,275 and 3,750 dwellings per annum** across the TGSE housing market area. In composite, the adjustments applied uplift the 'starting point' of the 2012 SNHP by between 13 – 30%. This captures uplifts applied in relation to household formation rates and positive adjustments to population projections, while enabling a level of flexibility in ensuring that the identified level of housing need supports identified strong employment growth potential across TGSE. These are all important factors which suggest that there will be a sustained need for new housing in the HMA.

14. Provision within this range would more than double the recent historic average annual rate of new housing completions in TGSE, thereby significantly boosting supply as advocated by the NPPF. This would be anticipated to have an impact on improving affordability recognising the scale of the uplift cumulatively from the 'starting point' demographic projection and historic levels of supply. This would also support a continued level of job growth through a sustained growth in the labour force, although this should be further considered within the context of the findings of future economic evidence to be commissioned by the TGSE authorities.

15. The SHMA has identified a range of OAN for the HMA. This recognises that the authorities are undertaking further work through the preparation of an Economic Development Needs Assessment (EDNA) to appraise the anticipated economic potential of the area. In recognising the evidence of strong need for housing of all tenures – in the context of the market signals evidence and the calculation of affordable

housing need – as well as the area's stated growth ambitions, **this study concludes that weight should be given to the upper end of the OAN range** in the development of housing policy and the assessment of housing land supply.

16.   As advocated by the PPG, housing needs have been assessed across the TGSE housing market area. In order to inform Local Plan preparation, consideration has also been given to the scale of need within each of the individual authorities over the period from 2014 to 2037. This is summarised in the following table.

Figure 1.1:   Summary of Objectively Assessed Need Range

	Lower end of range	Upper end of range
Basildon	763	837
Castle Point	326	410
Rochford	312	392
Southend-on-Sea	953	1,132
Thurrock	919	973
TGSE	**3,272**	**3,744**

Source: Turley, 2015; Edge Analytics, 2015

17.   In accordance with the PPG, the assessment of housing need has been undertaken on a 'policy-off' basis. In taking the OAN forward into policy, individual authorities will need to consider the implications of potential policy factors including, for example, the ambitions for higher than forecast levels of job growth, the viability of delivering affordable housing need, as well as supply factors such as land availability, infrastructure capacity and development viability or constraints.

Affordable Housing Need

18.   The PPG also requires local authorities to separately assess the need for affordable housing, by identifying those households in current need and estimating future newly arising need, balanced against supply. This indicates that there is a significant level of unmet and likely future need for affordable housing across TGSE, with a calculated need for 1,877 affordable homes annually over the next five years to clear the backlog and meet newly arising needs. Once the backlog is cleared, only newly arising needs will need to be met, requiring 1,767 affordable homes annually over the remainder of the projection period. As summarised in the following table, there is a need for affordable housing throughout TGSE, although it is notable that the sizeable committed supply of new affordable housing in Thurrock is assumed to clear the backlog of households in greatest need within the next five years.

Figure 1.2: Affordable Housing Need Assessment

	Annual shortfall in affordable housing to meet current backlog	Annual net new need	**Net annual affordable housing need (five years)**
Basildon	103	152	**254**
Castle Point	62	236	**298**
Rochford	59	210	**268**
Southend-on-Sea	77	573	**650**
Thurrock	-191	597	**406**
TGSE	**110**	**1,767**	**1,877**

Source: Turley, 2015

19. The assessment also seeks to consider how various intermediate products can play a role in meeting the need for affordable housing, by identifying households who are unable to afford market housing but can afford intermediate products. With the exception of Thurrock, this suggests that shared ownership requires a similar income to that required to privately rent, suggesting that this product provides households with an option to choose between the flexibility of the private rented sector and the opportunity to secure and invest in a shared ownership property. Affordable rent can also play a role in meeting needs by lowering the costs associated with entry-level market housing, although many other intermediate products are only likely to provide alternative options for households who can already afford to privately rent rather than playing a role in meeting the needs of households unable to afford this tenure.

20. It is important to recognise that the affordable housing needs assessment is based on an entirely separate methodology to that employed to objectively assess the need for housing in TGSE. There is a complex relationship between market housing and affordable housing, with existing households in the private market, for example, vacating a property if their need for affordable housing was met.

21. However, given the sizeable need for affordable housing identified through this assessment, it will be important for the Councils to seek to maximise the delivery of affordable housing through the provision of market housing. Indeed, as set out above, this strongly suggests that weight should be placed upon the upper end of the range of assessed housing needs as being representative of the full OAN in accordance with the PPG and NPPF. As noted at paragraph 16, this OAN will need to be considered alongside other factors in the development of subsequent housing requirements within policy.

Size and Type of Housing Needed

22. Following the recommendation of an OAN, the PPG requires a further consideration of the type and size of housing required. This can be analysed by considering trends in the current population, with future change in the demographic profile assumed to shape

future demand for different types and sizes of property. This indicates that there will be a future demand for property of all sizes and types, with a specific demand for family sized housing. There will also be a future demand for flats, although a continuation of recent levels of supply could result in an overprovision of flats relative to the suggested demand. This does not, however, take account of factors which could impact upon future trends, such as the increased appeal of flats due to their lower cost.

23.   Over the projection period, there will also be a specific need generated by older people, with this age group projected to grow considerably over the period to 2037 within the HMA. This growth could generate an additional demand for specialist housing, based on estimated prevalence rates, resulting in a suggested need for 330 – 350 additional specialist housing bedspaces annually. This includes sheltered and extra care housing, and provision of this type of accommodation will contribute towards meeting the objectively assessed need. Outside of the OAN, however, is an assumed increase in the communal population, which is not converted into private dwellings and is therefore additional to the OAN. This is entirely attributable to people aged 75 and over, indicating that there will be an additional need for approximately 150 communal bedspaces annually across TGSE over the projection period, in addition to the identified OAN.

24.   Consideration is also given to the needs of households looking to build their own homes, with the Government promoting the growth of this sector and implementing a new Right to Build, which gives custom builders the right to a plot from local authorities. Local authorities are expected to establish local registers of demand, which will provide a useful future mechanism for monitoring demand for self-build and custom building housing across TGSE. This should be taken into account in developing respective Local Plans.

1. Introduction

1.1 Turley – in partnership with specialist demographic consultancy Edge Analytics – have been commissioned by the Thames Gateway South Essex (TGSE) authorities of Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock to prepare a Strategic Housing Market Assessment (SHMA). The South Essex Growth Partnership includes each of these authorities, as well as Essex County Council and representatives from the South Essex business community.

1.2 With the Partnership covering local authority administrative areas, references to Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock in the SHMA relate to the whole administrative area of each local authority, unless otherwise specified. The area of assessment therefore covers all settlements within respective local authority areas, as illustrated in the following plan.

Figure 1.1: South Essex
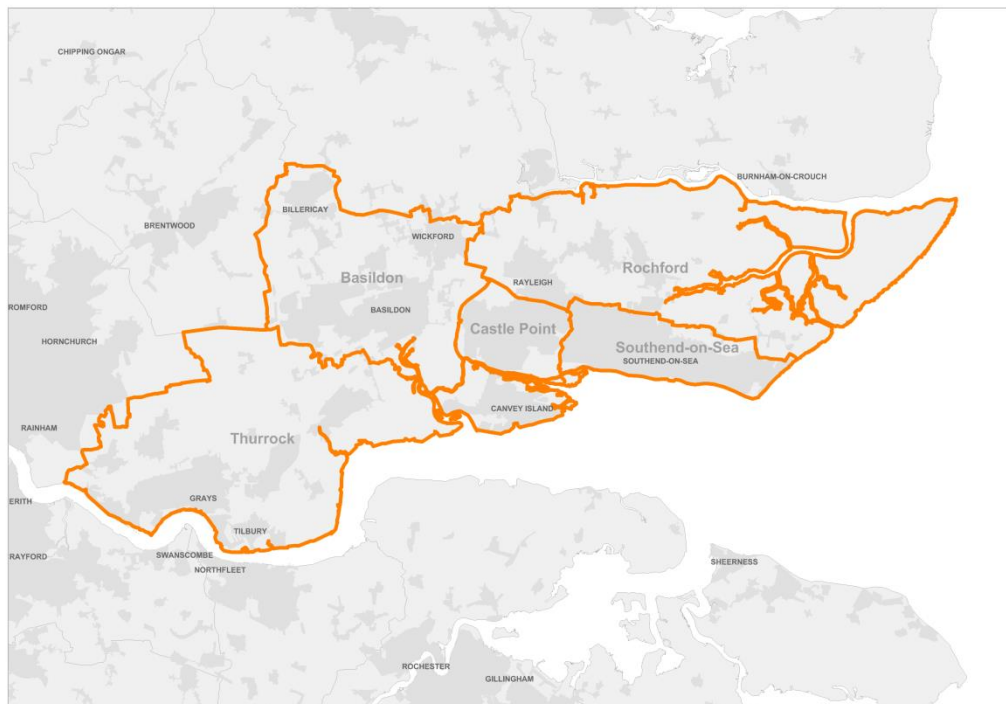
Source: Turley, 2016

Purpose of the SHMA

1.3 This report allows the housing evidence base of the strategic area to be reviewed and updated, building upon the original TGSE SHMA published by GVA in 2008 – and subsequently updated in 2010 – and the SHMA published by ORS in December 2013.

1.4 Since these studies were published, new guidance on assessing housing needs has been introduced by the Department for Communities and Local Government (DCLG), with the regular release of new datasets – including new 2012-based population and

household projections – requiring regular review of the housing evidence in TGSE. This study takes account of the latest data available, and therefore forms an important part of the evidence base to set future housing requirements in the constituent authorities as they progress in development of local planning policy. This report forms part of a continuing process of refining, updating and estimating future housing needs across the TGSE housing market area.

1.5   The study has been overseen from inception by a steering group of representatives from the South Essex Growth Partnership. This study has been undertaken using secondary research, and over the course of the project, a number of authorities have commissioned separate primary surveys of housing need. The outputs of these studies are not directly comparable due to the different methodological approaches used, although reference may be made to these studies where the evidence provides complementary local evidence of need.

Relevant Policy and Guidance

National Planning Policy Framework

1.6   The National Planning Policy Framework (NPPF) was published by DCLG in March 2012, and sets out guidance on preparing this evidence. Firstly, it is important to recognise that the NPPF is built around a policy commitment to achieving sustainable development. A '*presumption in favour of sustainable development*' is at the heart of the NPPF, requiring local authorities to adopt a positive approach in the development of their Local Plans in order to '*seek opportunities to meet the development needs of an area*'[2].

1.7   Further clarification is provided through the core planning principles set out in paragraph 17 of the Framework. Importantly, this includes the following requirement that planning should:

"Proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business and other development needs of an area, and respond positively to wider opportunities for growth. Plans should take account of market signals, such as land prices and housing affordability, and set out a clear strategy for allocating sufficient land which is suitable for development in their area, taking account of the needs of the residential and business communities"[3]

1.8   On the issue of housing, the Framework states that, in order to boost the supply of housing, local authorities should:

"Use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework"[4]

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[2] DCLG (2012) National Planning Policy Framework (para 14)
[3] *Ibid* (para 17)
[4] *Ibid* (para 47)

1.9 This is qualified further in paragraph 14, which states that:

"Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to change unless:

- *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or*

- *specific policies in this Framework indicate development should be restricted."*[5]

1.10 The Framework provides further guidance on the use of a proportionate evidence base, stating that:

"Each local planning authority should ensure that the Local Plan is based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics and prospects of the area. Local planning authorities should ensure that their assessment of and strategies for housing, employment and other uses are integrated, and that they take full account of relevant market and economic signals"[6]

1.11 The NPPF explains that a number of drivers and datasets should be considered when establishing this estimate of the objectively assessed housing need:

"Local planning authorities should have a clear understanding of housing needs in their area. They should:

- *Prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries. The Strategic Housing Market Assessment should identify the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period which:*

  - *Meets household and population projections, taking account of migration and demographic change;*

  - *Addresses the need for all types of housing, including affordable housing and the needs of different groups…; and*

  - *Caters for housing demand and the scale of housing supply necessary to meet this demand"*[7]

Planning Practice Guidance

1.12 The NPPF recognises that local authorities are required to undertake an assessment of the need for housing, identifying the SHMA as the central evidence based document for establishing objectively assessed housing needs.

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[5] *Ibid* (para 14)
[6] *Ibid* (para 158)
[7] *Ibid* (para 159)

1.13   In March 2014, DCLG formally published the Planning Practice Guidance (PPG). Of particular relevance to the calculation of the objectively assessed needs of an area is the publication of the guidance note titled *'Housing and economic development needs assessments'*.

1.14   The PPG sets out a framework for the development of housing need evidence in line with the requirements of the NPPF. It retains the core methodological processes set out in the 2007 DCLG Guidance[8] – which the PPG now supersedes – whilst providing additional clarity on the methodology required to establish objectively assessed need within a housing market area.

1.15   Clarification is provided within the PPG around the 'definition of need':

"Need for housing in the context of the guidance refers to the scale and mix of housing and the range of tenures that is likely to be needed in the housing market area over the plan period – and should cater for the housing demand of the area and identify the scale of housing supply necessary to meet that demand"[9]

1.16   A clear distinction is made between the 'objective assessment of need' and the development of planning policy to seek to provide for future needs:

"The assessment of development needs is an objective assessment of need based on facts and unbiased evidence. Plan makers should not apply constraints to the overall assessment of need, such as limitations imposed by the supply of land for new development, historic under performance, viability, infrastructure or environmental constraints. However, these considerations will need to be addressed when bringing evidence bases together to identify specific policies within development plans"[10]

1.17   With regards to the calculation of need, the PPG states:

"There is no one methodological approach or use of a particular dataset(s) that will provide a definitive assessment of development need. But the use of this standard methodology is strongly recommended because it will ensure that the assessment findings are transparently prepared. Local planning authorities may consider departing from the methodology, but they should explain why their particular local circumstances have led them to adopt a different approach where this is the case. The assessment should be thorough but proportionate, building where possible on existing information sources outlined within the guidance"[11]

1.18   The PPG identifies that the household projections published by DCLG should provide the starting point for the estimate of overall housing need[12]. Importantly, the PPG states:

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[8] DCLG (2007) Strategic Housing Market Assessments – Practice Guidance

[9] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/#paragraph_003

[10] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/#paragraph_004

[11] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/#paragraph_005

[12] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

"Plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates. Account should also be taken of the most recent demographic evidence including the latest Office of National Statistics population estimates"[13]

1.19   The PPG also recognises the importance of taking other long-term drivers of the housing market into account in understanding future projections of need. The guidance states that importance should be attributed to employment trends, noting:

"Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area… Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems"[14]

1.20   In addition to economic factors, the PPG also recognises the importance of taking market signals into account:

"The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings"[15]

1.21   The PPG confirms when considering the analysis of market signals:

"A worsening trend in any of these indicators will require upward adjustment to planned housing numbers compared to ones based solely on household projections…In areas where an upward adjustment is required, plan makers should set this adjustment at a level that is reasonable. The more significant the affordability constraints (as reflected in rising prices and rents, and worsening affordability ratio) and the stronger other indicators of high demand (eg the differential between land prices), the larger the improvement in affordability needed and therefore, the larger the additional supply response should be"[16]

Duty to Co-operate: policy and legislative framework

1.22   The NPPF states that local authorities have a 'Duty to Co-operate' on planning issues that cross administrative boundaries. The Planning and Compulsory Purchase Act (2004) also requires local authorities to engage constructively with neighbours.

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[13] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_017

[14] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

[15] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

[16] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_020

1.23   The NPPF makes particular reference to the importance of effectively fulfilling this duty when considering – and presenting – the strategic policies to deliver new homes and jobs within Local Plan preparation.

1.24   The NPPF provides guidance to local authorities regarding the appropriate measures to undertake in order to fulfil the duty:

•   Joint working on areas of common interest is to be diligently undertaken to the mutual benefit of neighbouring local authorities;

•   Collaborative working is to be undertaken between local authorities and other bodies, such as Local Enterprise Partnerships (LEPs); and

•   Consideration of the preparation of joint planning policies on strategic matters.

1.25   The Duty to Co-operate therefore acts as the mechanism by which local planning authorities can effectively:

"Ensure that strategic priorities across local boundaries are properly coordinated and clearly reflected in individual Local Plans"[17]

1.26   The NPPF states that the required outcome of the Duty to Co-operate is that, through this constructive process, it should enable:

"Local planning authorities to work together to meet development requirements which cannot be met within their own areas"[18]

1.27   The PPG provides further guidance on the Duty to Co-operate, particularly clarifying the expectation for local planning authorities to take a strategic approach in the development of a Local Plan, in compliance with requirements of the NPPF. Importantly, in relation to the objective assessment of need, it is noted that:

"Local Plans should be based on a strategy which seeks to meet objectively assessed development and infrastructure requirements, including unmet requirements from neighbouring local planning authorities where it is reasonable to do so and consistent with achieving sustainable development. Therefore, if a local planning authority preparing a Local Plan provides robust evidence of an unmet requirement, such as unmet housing need, identified in a Strategic Housing Market Assessment, other local planning authorities in the housing market area will be required to consider the implications, including the need to review their housing policies"[19]

1.28   Finally, the PPG clarifies that the Duty to Co-operate is not necessarily a duty to agree. Clarification is provided to explain that there is not an obligation for unmet needs from other authorities in a housing market area to be met in addition to an authority's own needs. However, in arriving at this position, the PPG states that:

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[17] DCLG (2012) National Planning Policy Framework (para 179)
[18] *Ibid* (para 179)
[19] http://planningguidance.planningportal.gov.uk/blog/guidance/duty-to-cooperate/what-is-the-duty-to-cooperate-and-what-does-it-require/#paragraph_020

"Local planning authorities are not obliged to accept the unmet needs of other planning authorities if they have robust evidence that this would be inconsistent with the policies set out in the National Planning Policy Framework, for example policies on Green Belt or other environmental constraints"[20]

1.29 This report acknowledges the importance of recognising linkages with other surrounding housing market areas and their evidence bases, investigating any areas where there recognisable market linkages between TGSE and surrounding areas.
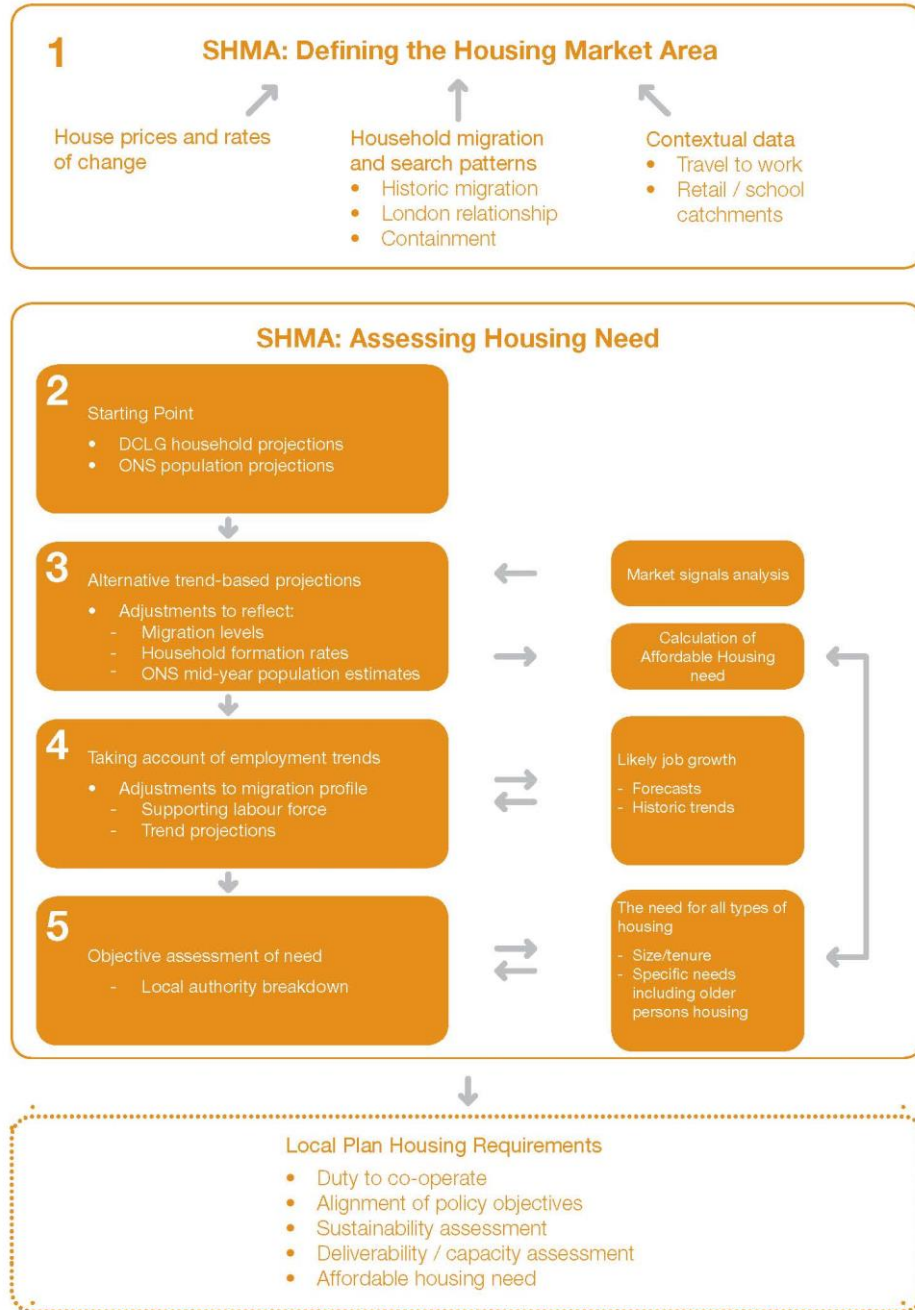
Methodological Approach

1.30 The PPG notes that there is no one methodological approach that will provide a definitive assessment of development need. Equally, it is important to recognise that recent years have seen comparatively significant changes in the performance of the economy and indeed the housing market, presenting a number of challenges in forecasting future trajectories of change.

1.31 In order to reflect these issues, this report adopts a scenario-driven approach which considers the impacts of different assumptions relating to demographic and economic factors, as well as market signals.

1.32 The SHMA has included a review of available economic forecasts and historic employment evidence as required by the PPG in appraising the potential implications on the need for housing. It is understood that following the conclusion of this SHMA the authorities collectively plan to undertake a detailed NPPF-compliant Economic Development Needs Assessment (EDNA). This will include a more detailed consideration of the future prospects of the economy of the area. It is recognised that this could have a potential impact on the assessment of housing need presented within this SHMA. Conclusions around the forecast level of employment growth and implications for labour-force demand across TGSE and individual authorities resulting from this work will need to be considered in the context of the scenarios presented within this SHMA.

1.33 The methodological approach adopted within this report is consistent with national guidance, and is illustrated in Figure 1.2.

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[20] http://planningguidance.planningportal.gov.uk/blog/guidance/duty-to-cooperate/what-is-the-duty-to-cooperate-and-what-does-it-require/#paragraph_021

Figure 1.2:   Objectively Assessed Needs – Methodology

SHMA Methodology

1   SHMA: Defining the Housing Market Area

House prices and rates of change

Household migration and search patterns
- Historic migration
- London relationship
- Containment

Contextual data
- Travel to work
- Retail / school catchments

SHMA: Assessing Housing Need

2   Starting Point
- DCLG household projections
- ONS population projections

3   Alternative trend-based projections
- Adjustments to reflect:
  - Migration levels
  - Household formation rates
  - ONS mid-year population estimates

Market signals analysis

Calculation of Affordable Housing need

4   Taking account of employment trends
- Adjustments to migration profile
  - Supporting labour force
  - Trend projections

Likely job growth
- Forecasts
- Historic trends

5   Objective assessment of need
- Local authority breakdown

The need for all types of housing
- Size/tenure
- Specific needs including older persons housing

Local Plan Housing Requirements
- Duty to co-operate
- Alignment of policy objectives
- Sustainability assessment
- Deliverability / capacity assessment
- Affordable housing need

Source: Turley, 2015

Stakeholder Engagement

1.34   The methodology for the SHMA recognises the importance of engaging with stakeholders in order to obtain a wide-ranging set of views on the local housing market, and to provide further insights to assess the wide range of data sources used.

1.35   In March 2015, a stakeholder workshop was held and attended by representatives of the development industry, strategic land owners, agents, housing associations and other stakeholders. Attendees were presented with an overview of the methodology to be used in the study, and initial outputs relating to the definition of the housing market area (HMA), market signals and population and household projections.

1.36   Attendees were provided with the opportunity to provide feedback, and views on the information presented were gathered through a series of focused workshop sessions facilitated by members of the consultancy team or steering group. Attendees – as well as those who were unable to attend – were also given the opportunity to provide further written feedback to the consultancy team. A number of responses were received, and considered responses and confirmation of resultant actions are summarised in Appendix 1.

1.37   A further stakeholder workshop was held in September 2015, with a similar format to the first event. Draft outputs from the modelled demographic and economic scenarios which inform the study were presented, with a series of targeted workshop sessions used to obtain feedback. Again, the opportunity to provide further written comments was available, and these comments were considered in developing appropriate actions taken in response. These are summarised in Appendix 1.

Report Structure

1.38   The remainder of this report is structured around the following sections:

- **Section 2 – Defining the Housing Market Area –** this section defines the housing market area geography of the TGSE area, based on guidance in the PPG which requires an analysis of key spatial indicators, including house prices, migration and other contextual data;

- **Section 3 – Demographic Projections of Need –** the PPG identifies the 2012 sub-national household projections (SNHP) as the 'starting point' for assessing future housing need to which the need for adjustments and uplifts should be evidenced. Analysis in this section considers these projections in the context of historical evidence to assess the implications of the use of trend-based projections in the HMA. A number of variant projections are presented using the POPGROUP model in order to assess the sensitivity of projected trends to differing demographic input assumptions;

- **Section 4 – Likely Change in Job Numbers and Implications for Housing Need** – this section analyses available economic forecasts in the context of historic employment evidence. Forecast levels of likely job change are then compared against the projected change in the working age and labour force derived from the demographic projections set out in section 3. A further set of alternative projections are presented constrained by levels of identified job growth to identify the potential justification for an uplift in the assessment of housing need to support and enable economic growth as a result of a variation in migration levels;

- **Section 5** – **Market Signals** – the PPG suggests that market signals should be taken into account in assessing housing need, given that several indicators – including house prices, rental values and affordability – can establish the relationship between supply and demand. This section analyses a range of market signals, and considers the extent to which an adjustment is considered to be required to the trend-based demographic household projections;

- **Section 6 – Calculating Affordable Housing Need** – a calculation of the level of need for affordable housing is undertaken, drawing upon data from a range of secondary data sources. Income and housing costs are considered in order to assess the role of different 'affordable' products in meeting need, including intermediate housing. This section concludes with an estimation of the breakdown of need by size;

- **Section 7** – **Arriving at an Objective Assessment of Need –** an evaluation of the evidence presented within preceding sections is presented in this section to derive an objective assessment of need for the TGSE housing market area. Outputs are presented for each of the constituent authorities, recognising that each authority is at varying stages of progressing a Local Plan;

- **Section 8 – Needs for Different Types of Housing** – following the PPG methodology, the assessment of housing need is translated into a need for different types and sizes of housing; and

- **Section 9 – Conclusions** – the report concludes with a section outlining the conclusions and recommendations arrived at through this research.

2. Defining the Housing Market Area

2.1 National guidance highlights the importance of understanding housing needs across housing market area geographies, with the PPG stating that:

"A housing market area is a geographical area defined by household demand and preferences for all types of housing, reflecting the key functional linkages between places where people live and work. It might be the case that housing market areas overlap"[21]

2.2 The PPG also includes guidance on how housing market areas should be defined, recommending analysis of three key indicators:

- **House prices and rate of change in house prices** – analysis of these indicators is intended to provide a market based reflection of housing market area boundaries, and can show the relationship between housing demand and supply across different locations. This enables the identification of areas which have clearly different price levels compared to surrounding areas;

- **Household migration and search patterns** – considering the movement of people provides an indication of housing search patterns and preferences, and the extent to which people move house within a specific geography. Importantly, the PPG states that the findings can identify areas within which a relatively high proportion of household moves – typically 70% – are contained; and

- **Contextual data** – analysis of further spatial indicators to understand the local context, with commuting patterns providing information on the spatial structure of the labour market which influences the cost of housing and locational preferences. Unlike for migration, however, the PPG does not contain any guidance on thresholds of containment for commuting;

2.3 These indicators are analysed within this note to determine the extent to which Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock can be considered to operate as a single housing market area. Local authority boundaries are retained when defining the HMA geography. This recognises the need to translate evidence into policy using a common set of boundaries and the availability of data.

Migration

2.4 The PPG recognises that migration flows and housing search patterns can help to identify relationships around housing preferences, and can highlight the extent to which people move house within an area. The concept of containment of moves is therefore central to the definition of housing market areas, and the release of migration data from the 2011 Census in July 2014 – following publication of the previous TGSE SHMA[22] – provides a reliable and up-to-date picture of movements across the country.

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[21] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/scope-of-assessments/#paragraph_010

[22] ORS (2013) Fundamental Review of Thames Gateway South Essex Strategic Housing Market Assessment

2.5   The Census 2011 migration data allows an assessment of the proportion of moves that are contained within each authority in TGSE, and within the wider geography. Calculating the proportion of people moving from an authority shows the likelihood of moving households to remain within the same authority, while a similar calculation can show the propensity of moving households to remain within a wider housing market area. This is summarised in the following table.

Figure 2.1:   Containment of Moves 2010/11

	Containment within authority	Containment within TGSE
Basildon	57.6%	68.9%
Castle Point	51.2%	75.9%
Rochford	43.1%	72.8%
Southend-on-Sea	65.8%	77.9%
Thurrock	61.9%	69.5%
TGSE	**–**	**72.9%**

Source: Census 2011

2.6   Looking collectively at the five authorities, it is clear that around 73% of people moving from an address in TGSE during the year before the Census remained within this functional geography, suggesting a relatively high level of self-containment which notably exceeds the 70% threshold in the PPG.

2.7   Importantly, no authority has a comparable level of self-containment, with Southend-on-Sea and – to a lesser extent – Thurrock seeing levels of containment in excess of 60% but remaining below the threshold in the PPG. Rochford, in contrast, has a self-containment of only 43%. This suggests that no authority in TGSE can be independently considered as a self-contained housing market area based on this measure, and highlights the importance of looking to identify a larger functional housing market area geography.

2.8   A further calculation can show the proportion of people who moved from an address in TGSE during the year before the Census that moved from another area within the same authority or wider geography. This provides an indication of the origin of migrants, as summarised in the following table.

Figure 2.2:   Origin of Migrants 2010/11

	Moved from within authority	Moved from within TGSE
Basildon	60.6%	70.5%
Castle Point	54.5%	78.6%
Rochford	44.5%	76.0%
Southend-on-Sea	64.2%	80.1%
Thurrock	61.6%	66.6%
TGSE	**–**	**74.0%**

Source: Census 2011

2.9   Again, this indicator shows a high level of containment within the TGSE geography, with 74% of people who moved to an address in the area during the year before the Census originating in one of the five constituent authorities. This is particularly true for Castle Point and Southend-on-Sea, although – interestingly – Thurrock has a lower level of containment at this geography, suggesting a sizeable inflow from elsewhere. This is likely to reflect the proximity of Thurrock to London.

2.10   It is also notable that fewer than half of people who moved to a new address in Rochford during the year before the Census originated within the district, suggesting a significant inflow of migrants from other authorities.

2.11   In order to gain a further understanding of the extent, size and direction of these flows, the following plan shows the largest net migration flows[23] associated with the TGSE authorities.

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[23] Flow included where a net migration of over 100 people between local authorities was recorded

Figure 2.3:   Net Migration Flows 2010/11
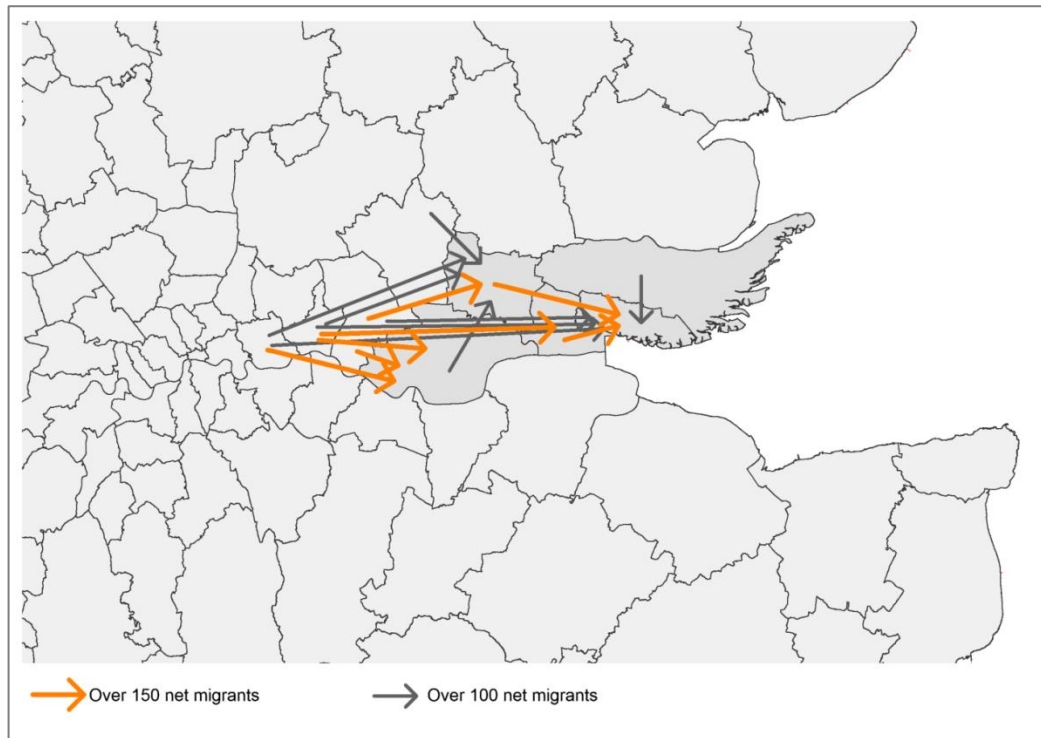
Source: Census 2011; Turley, 2015

2.12   As shown, there are significant flows within TGSE – such as a net flow from many authorities to Southend-on-Sea – but there are also significant net inflows from areas outside of this geography. In particular, there is a significant flow from east London – particularly from the London Boroughs of Havering, Newham and Barking and Dagenham – which is particularly centred on Thurrock, Basildon and Southend-on-Sea. This is evidently an important characteristic in the local housing market, and is considered further below with regards to migration.

Relationship with London

2.13   The evidence suggests that many authorities have a relatively low level of containment of moves – although nevertheless many moves are contained within a TGSE geography – and it can be expected that some of these characteristics are due to the relationship with London.

2.14   In order to illustrate this relationship, the following graph shows the net flow of migrants from Greater London to TGSE during the year before the 2011 Census. This highlights that Thurrock saw the greatest net inflow from Greater London – and is thereby influenced by this migration flow to the greatest extent – whereas Rochford and Castle Point saw only a smaller net inflow. It is, however, clear that there is a net inflow to all authorities, showing that the relationship with London is a driver of population growth in each TGSE authority.

Figure 2.4: **Net Flow from Greater London to TGSE 2010/11**
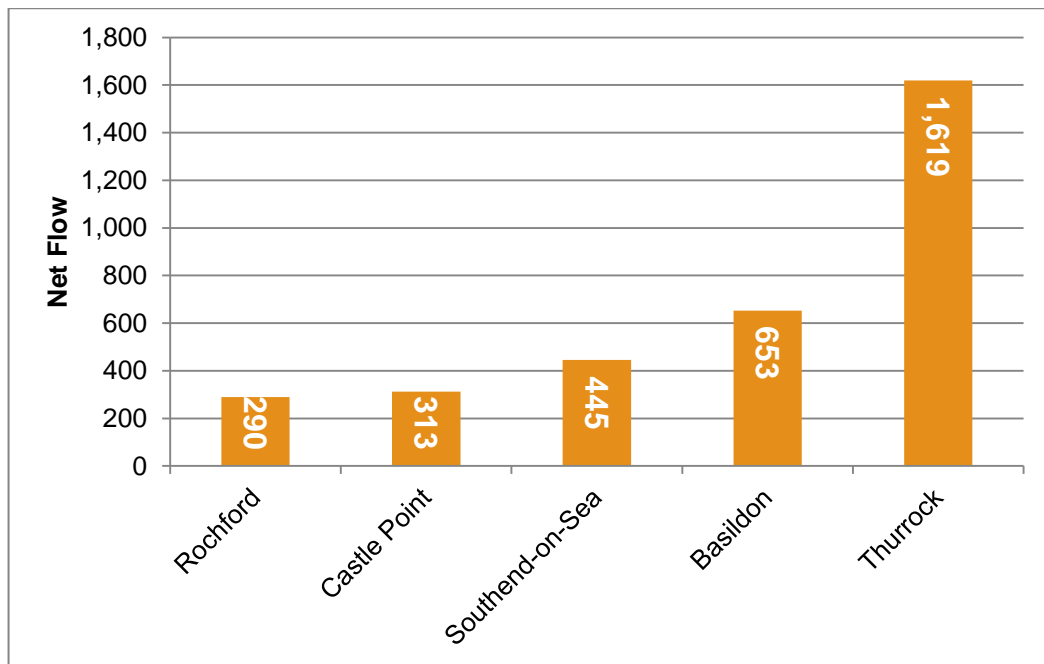
Source: Census 2011

2.15   It is, however, also important to consider the extent to which these relationships drive migration flows in each authority. The following graph shows the proportion of moves to and from each authority in TGSE that originate or end in London respectively. A comparatively high proportion of moves to Thurrock evidently originate in London, and a relatively high proportion of people moving from the borough move to the capital. Basildon also has a relatively strong relationship with London, with Southend-on-Sea having a slightly weaker connection overall.

Figure 2.5: **Proportion of Moves Connected with London 2010/11**
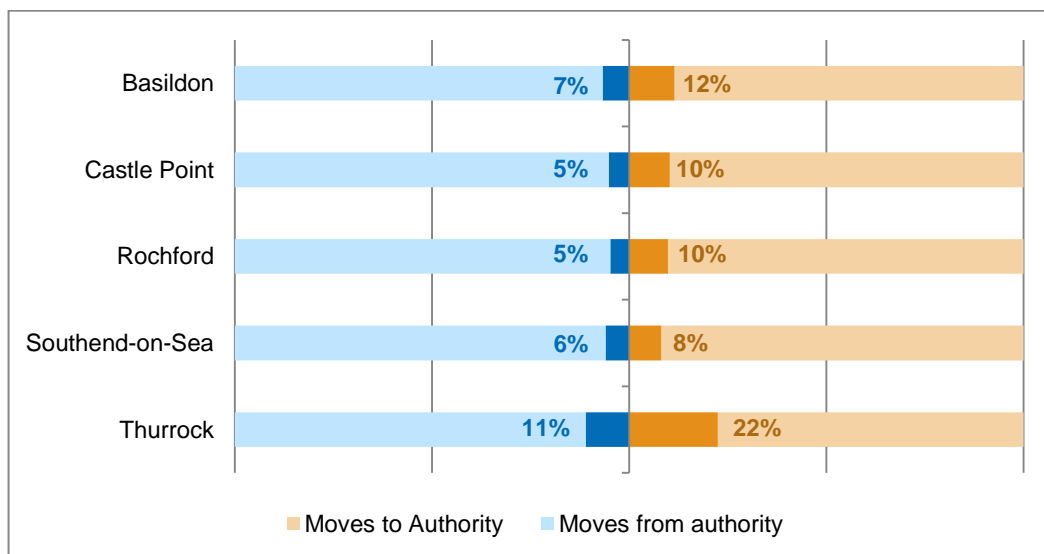
Source: Census 2011

2.16   On this basis, it can be beneficial to test the impacts of excluding London moves on the overall containment of moves to and from each TGSE authority. The following table shows the levels of containment based on all moves to addresses in each authority, excluding those originating in London. The levels of containment when London authorities are included are also shown for context, replicated from Figure 2.1.

Figure 2.6:   Containment of Moves 2010/11 – Excluding Greater London

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
All moves	57.6%	51.2%	43.1%	65.8%	61.9%	72.9%
Excluding London	**61.7%**	**54.0%**	**45.3%**	**70.0%**	**69.5%**	**78.5%**

Source: Census 2011

2.17   When London is excluded, Southend-on-Sea and Thurrock in particular show a higher level of containment which approaches or exceeds the 70% threshold suggested in the PPG. This suggests that moves within these authorities are more likely to be self-contained when moves from London are excluded, although it is notable that containment levels in Castle Point and Rochford continue to be relatively low. This suggests that these authorities also have important local relationships, with low levels of containment therefore not entirely attributable to London.

2.18   It is also beneficial to understand the extent to which containment based on the origin of migrants is influenced by London, by running a similar calculation excluding moves from Greater London. The impact of this sensitivity is summarised in the following table.

Figure 2.7:   Origin of Migrants 2010/11 – Excluding Greater London

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
All moves	60.6%	54.5%	44.5%	64.2%	61.6%	74.0%
Excluding London	**68.5%**	**60.8%**	**49.4%**	**70.0%**	**79.5%**	**84.9%**

Source: Census 2011

2.19   This evidently has a significant impact in many authorities, where a sizeable proportion of people moving to the authority had moved from Greater London. Indeed, at TGSE level, around 85% of migrants – excluding those from Greater London – moved within this functional geography. Again, Thurrock and Southend-on-Sea have the highest levels of containment, suggesting that while London is a significant driver of migration to these authorities, there is an underlying comparably high level of containment. In contrast, this is not the case in Rochford in particular.

2.20   The relationship with London and its demographic and economic implications are considered further later in this report.

House Prices

2.21   The PPG suggests that house prices should be analysed in order to understand housing market area geographies. This recognises that house prices – which reflect the outcomes of supply and demand in the market – can be used to identify patterns in the relationship between housing demand and supply across different locations. An analysis of house prices therefore provides a market based reflection of housing market area geographies, allowing the identification of areas with clearly different price levels to surrounding areas.

2.22   It is important to consider house prices within the wider context, and the following table therefore summarises change in average house prices across a wider geography which encompasses all neighbouring authorities. The table highlights change between 2002 and 2012, with 2007 – commonly interpreted as the peak of the market – also shown for additional information. This data is sourced from DCLG Live Tables, which are produced based on Land Registry data.

**Figure 2.8:   Change in Mean House Prices 2002 – 2012**

Authority	2002	2007	2012	2002 – 2012	2007 – 12
Southend-on-Sea	£121,285	£203,898	£214,191	**76.6%**	5.0%
Basildon	£137,977	£212,899	£221,378	**60.4%**	4.0%
Brentwood	£222,789	£328,266	£345,403	**55.0%**	5.2%
Medway	£113,160	£175,662	£173,693	**53.5%**	-1.1%
Gravesham	£135,451	£203,245	£205,803	**51.9%**	1.3%
Havering	£162,619	£246,926	£245,142	**50.7%**	-0.7%
Dartford	£148,063	£213,549	£223,118	**50.7%**	4.5%
Chelmsford	£170,755	£253,957	£256,452	**50.2%**	1.0%
Bexley	£151,079	£225,114	£226,376	**49.8%**	0.6%
Castle Point	£140,855	£216,586	£209,133	**48.5%**	-3.4%
Maldon	£165,715	£252,052	£244,003	**47.2%**	-3.2%
Thurrock	£125,529	£185,127	£180,974	**44.2%**	-2.2%
Rochford	£162,500	£241,841	£231,733	**42.6%**	-4.2%

Source: DCLG, 2015

2.23   As shown, house prices have grown at different rates across this geography, with average prices increasing by over 75% between 2002 and 2012 in Southend-on-Sea compared to around 43% in Rochford. This therefore does not suggest a significant commonality in this regard, although it is notable that – with the exception of Thurrock – average prices in the remaining TGSE authorities were relatively comparable, albeit slightly higher in Rochford.

2.24 Indeed, understanding the current profile of house prices in TGSE and surrounding areas provides an important insight into the price geography of the area. The following plan therefore illustrates the average price paid in each postcode sector in 2014, based on Land Registry data.

Figure 2.9:   Price Paid by Postcode Sector 2014
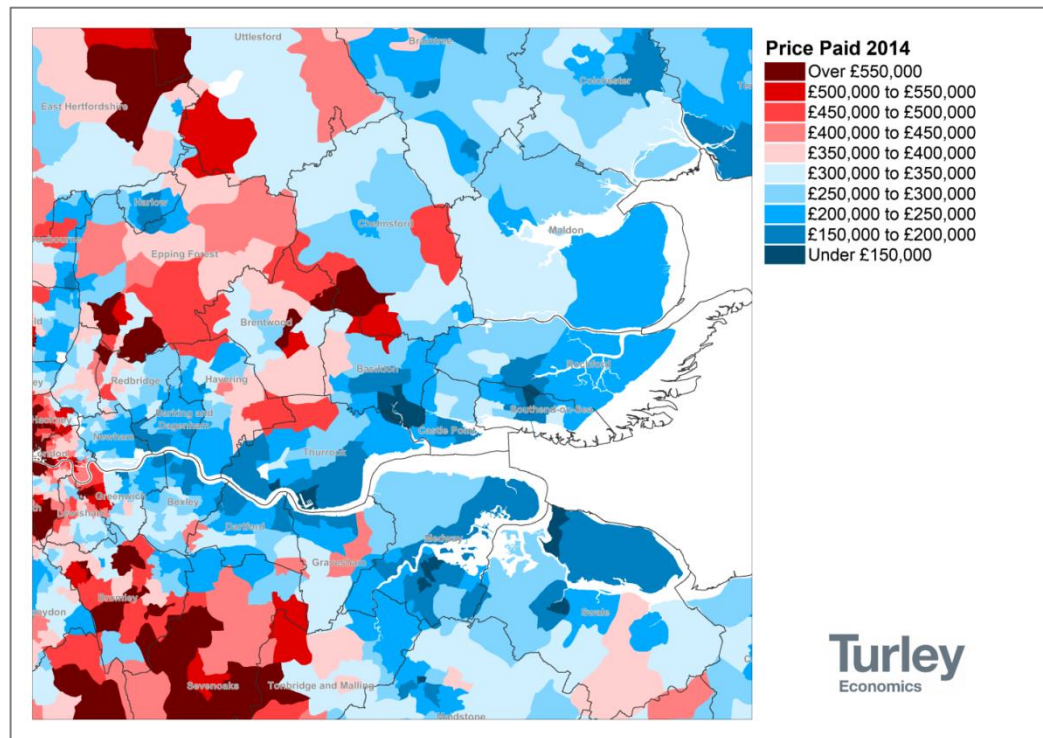
Source: Land Registry, 2015

2.25 There is evidently a broad consistency in average house price across the TGSE authorities. The more urban parts of TGSE, on the whole, demonstrate lower levels of average houses price compared to more rural areas.

2.26 There is an evidenced increase in house price in areas to the north west of TGSE suggesting a level of market demarcation with these areas. .

2.27 Taking a wider picture of the mapping shown in Figure 2.9, it is clear that house prices in TGSE are considerably lower than in a number of other areas illustrated, such as more central areas of London, Epping Forest and much of western Kent. More comparable house price levels are seen along the Thames into East London and over the Thames, directly into eastern Kent.

Contextual Data

2.28 The PPG suggests that other contextual data should be analysed when defining housing market areas, through consideration of other spatial indicators beyond those identified in the PPG.

Urban Form

2.29   The urban form of the TGSE area provides important context, with the following plan illustrating the extent of the Green Belt and location of urban areas[24].

Figure 2.10: Urban Area and Green Belt
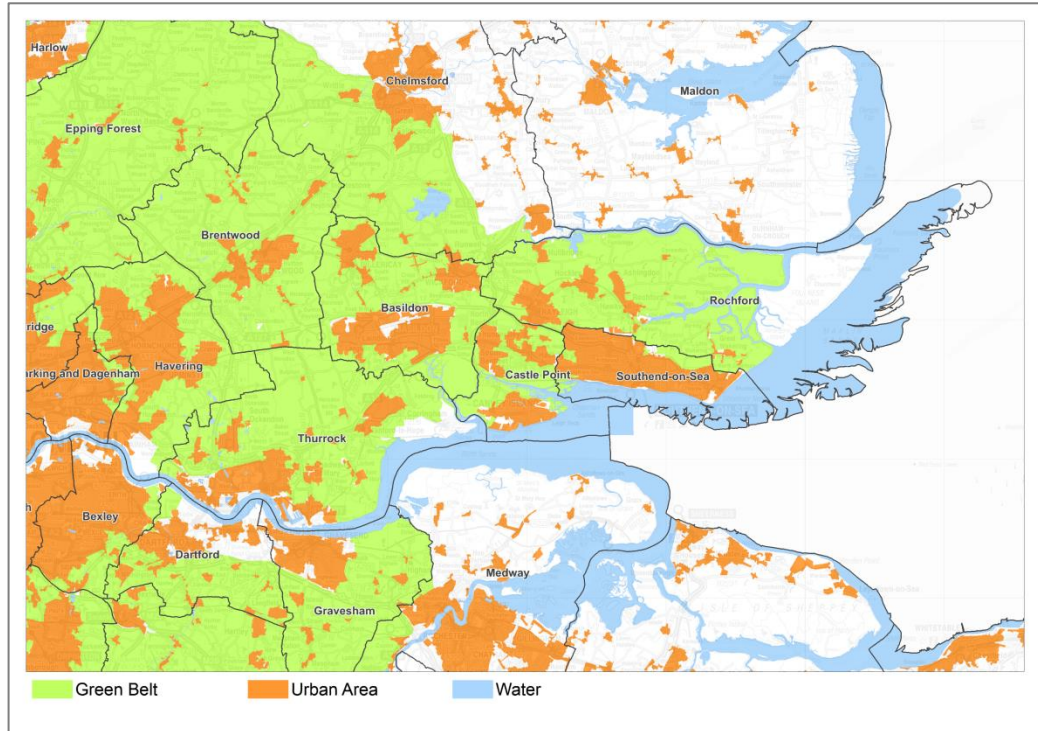
Source: Pitney Bowes, 2015; Turley, 2015

2.30   There is evidently a break in the London urban area to the west of TGSE, with the Green Belt acting as a buffer between the capital and the main urban areas of TGSE. The largest urban area of Thurrock, however – located on the riverside to the south west of the authority – is comparatively detached from other parts of the TGSE area, which is likely to be a factor in the slightly higher levels of containment seen in the authority. Settlements such as Corringham and Stanford-le-Hope, however, may share a stronger relationship with Basildon, given their proximity to the town.

2.31   Other characteristics can be attributable to the nature of Southend-on-Sea, which is predominantly urban. Given that this urban area broadly extends into Castle Point and – to a slightly lesser extent – Rochford, this is likely to be a factor in the strong connections between these three authorities.

Commuting

2.32   The PPG states that travel to work areas (TTWAs) can provide information about commuting flows and the spatial structure of the labour market. This is an official ONS dataset, released to identify areas where the bulk of the resident population also work within the same area.

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[24] As classified by Pitney Bowes

2.33   2011 TTWAs were defined in August 2015, based on data from the 2011 Census, with the methodology document outlining the approach taken:

"The current criteria for defining TTWAs is that at least 75% of the area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area. The area must also have an economically active population of at least 3,500. However, for areas with a working population in excess of 25,000, self-containment rates as low as 66.7% are accepted as part of a limited 'trade-off' between workforce size and level of self-containment"[25]

2.34   As shown in the following plan, TGSE is largely covered by a single TTWA, centred around Southend. Western parts of Thurrock, however, fall within the London TTWA, highlighting the important economic role of London for people living in this area of the district.

Figure 2.11: Travel to Work Areas 2011
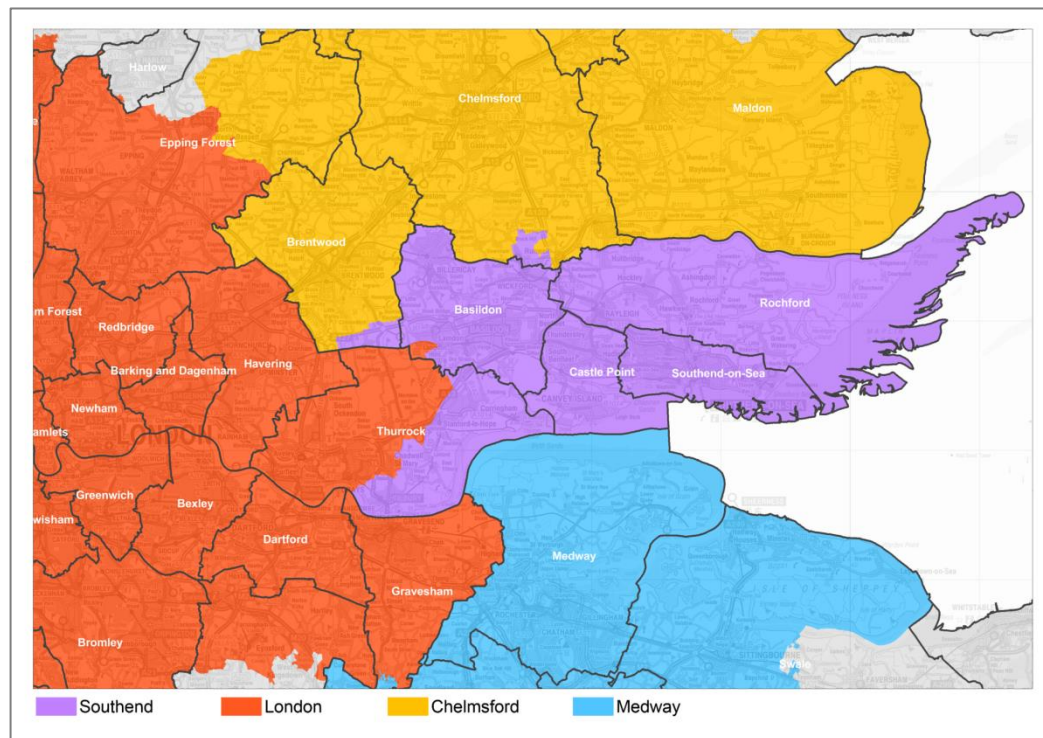
Source: ONS, 2015

2.35   It is also beneficial to analyse commuting patterns focusing on those living and working in each of the TGSE authorities, in order to identify key functional economic linkages with other areas. Again, this can be drawn from 2011 Census data, and the following table shows the proportion of residents of each authority who work within the same authority, and the proportion that work within the wider TGSE area.

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[25] ONS (2015) Overview of 2011 Travel to Work Areas

Figure 2.12: Containment of Labour 2011

	Works within authority	Works within TGSE
Basildon	47.2%	59.4%
Castle Point	29.3%	68.9%
Rochford	25.5%	68.1%
Southend-on-Sea	55.3%	75.0%
Thurrock	45.9%	56.5%
TGSE	**–**	**64.9%**

Source: Census 2011

2.36   Overall, around 65% of people who live in TGSE work within this geography, indicating that around 35% of the resident labour force commute elsewhere to work. This is variable within the area, however, with very few residents in Rochford and Castle Point working within their home authority but a considerable proportion working in another area of TGSE. Southend-on-Sea has the highest containment of its labour force, and indeed only around one in four residents commute outside of TGSE for work. This contrasts with Thurrock and Basildon, however, where over 40% of residents commute to work outside of TGSE.

2.37   To further illustrate this point, the following graphic shows major commuting flows from TGSE authorities, based on 2011 Census data. This highlights flows consisting of over 4% of residents.

Figure 2.13: Main Commuting Flows from TGSE 2011
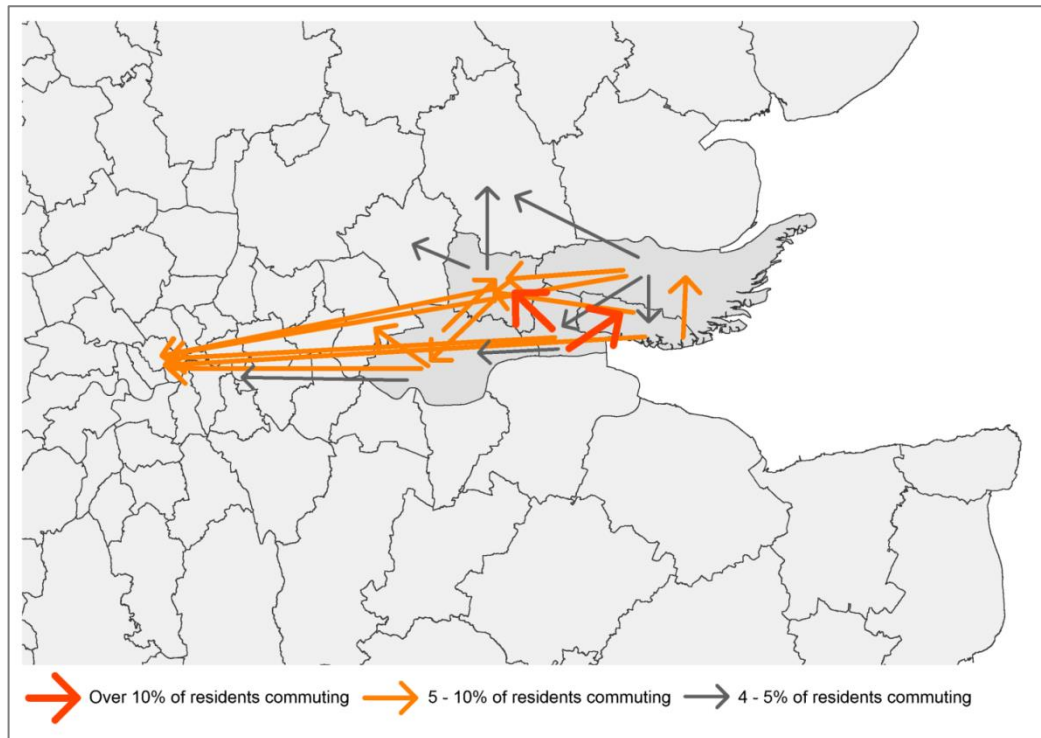
Source: Census 2011

2.38 Within TGSE, there is a significant flow from Castle Point to both Basildon and Southend-on-Sea, which is a likely driver behind the low levels of containment seen in the borough. Basildon draws on labour from many other areas of TGSE, while there are significant outflows recorded from Rochford to Basildon, Castle Point and Southend-on-Sea. There are also relationships between Basildon, Rochford and authorities to the north, primarily Brentwood and Chelmsford. Furthermore, there is a clear commuting relationship with London, with each authority seeing at least 5% of its residents commuting to work in central London.

2.39 There is evidently an important relationship between TGSE and Greater London as a place of work. The 2011 Census recorded a total of 66,548 TGSE residents who commuted to London, equivalent to a quarter of all commuting residents. This represents an increase of 5.7% compared to the number recorded in the 2001 Census, suggesting that this relationship has strengthened over the past decade. The strength of this relationship is likely to be driven to a large extent by the strong transport connectivity in the area, particularly by rail, with much of the area within around 1 hour of the city.

2.40 It is also important to consider the composition of the workforce in TGSE, and the proportion of which live within the area. This is summarised in the following table.

Figure 2.14: Containment of Workforce 2011

	Lives within authority	Lives within TGSE
Basildon	47.2%	73.5%
Castle Point	56.6%	90.5%
Rochford	44.5%	87.8%
Southend-on-Sea	64.1%	92.4%
Thurrock	57.6%	71.4%
TGSE	**–**	**80.7%**

Source: Census 2011

2.41   It is clear that a relatively high proportion of people working in TGSE also live within this geography, with the area only drawing on other authorities to fill around one in five jobs. This is important to consider in defining housing market areas, given that it suggests that those working in TGSE are more likely to live within the area. If a worker decides to move home, for example, they are likely to remain within the area, provided they do not also change jobs. This is likely to be reflected in the search area generated by prospective movers.

2.42   There is, however, important variation within TGSE. Compared to other authorities, Thurrock and Basildon draw upon a relatively sizeable labour force living outside of TGSE, while less than half of the workforce in Basildon reside within the authority. In contrast, almost two thirds of workers in Southend-on-Sea live in the borough, with over 90% living in TGSE.

Existing Research

2.43   In considering housing market areas, it is also important to recognise that national and regional research has been undertaken historically to assess housing market area geographies, while neighbouring authorities have also undertaken exercises to define housing market areas in assessing their need for housing. It is, though, important to recognise that the geographies arrived at within these studies are varied in their definitions, reflecting the use of different sources of data introduced earlier in this section. This could include datasets which have since been superseded, with the release of outputs from the 2011 Census representing an important update which is not reflected in many previous definitions.

2.44   Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock have collectively commissioned a number of housing evidence reports, with the 2008 SHMA prepared on behalf of the Housing Market Partnership[26]. This report followed available Government guidance – which has largely been retained – which suggested that migration, house prices and other contextual data should be analysed. This concluded that there was a single sub-regional housing market in South Essex, running from the M25 along the Thames Estuary to Southend and Shoebury. This was, however, based on analysis of

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[26] GVA Grimley (2008) Thames Gateway South Essex SHMA

2001 Census data, and house prices in 2007 which have evidently seen considerable change through the recession and housing market downturn.

2.45 The SHMA was updated in 2010[27], although the definition of the housing market area was not reviewed, while an update of the housing market area also did not fall within the scope of the subsequent fundamental review in 2013[28]. There is, therefore, an established principle of a housing market area which covers the five South Essex authorities, which has been retained through several updates to the SHMA.

Neighbouring Authorities

2.46 A review of the housing evidence prepared by neighbouring authorities has been undertaken, in order to obtain the latest evidenced position and identify instances where housing market area geographies may overlap into TGSE. This is summarised below:

- The South East London SHMA[29] was published in June 2014, and covers neighbouring **Bexley** as well as the London Boroughs of Bromley, Greenwich, Lewisham and Southwark. This does not highlight any significant relationships with the TGSE authorities;

- The **Brentwood** SHMA[30] was published in July 2014, and while this study was commissioned alongside similar projects in Braintree, Chelmsford, Colchester and Maldon – to adopt a consistent methodology across this area – the report considers that Brentwood can be considered as a single market area due to high levels of containment, based on 2001 Census data, suggesting that it is appropriate to consider needs within this geography. It is, however, suggested that the borough also shares links with neighbouring authorities including Basildon, which forms the basis for ongoing Duty to Co-operate discussions between the two authorities;

- An Objectively Assessed Housing Need Study was recently published for **Chelmsford**[31] alongside neighbouring Braintree, Colchester and Tendring, in which the housing market area is considered. This concludes that the four authorities collectively form a sound basis for understanding housing needs, based on the methodology set out in the PPG;

- No significant links are identified between **Dartford** and any TGSE authorities, based on the 2010 SHMA[32]. The borough was also covered by an earlier SHMA which assessed need across North Kent[33], suggesting that the borough shares a stronger relationship with these authorities;

- The **Gravesham** SHMA[34] – updated in 2012 – does not identify any significant relationships with TGSE, and, as above, the borough also formed part of the

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[27] GVA Grimley (2010) Thames Gateway South Essex SHMA: Update Report

[28] ORS (2013) Thames Gateway South Essex SHMA

[29] Cobweb Consulting (2014) South East London Strategic Housing Market Assessment

[30] DCA (2014) Brentwood Strategic Housing Market Assessment

[31] Peter Brett Associates (2015) Objectively Assessed Housing Need Study – Braintree, Chelmsford, Colchester and Tendring

[32] Dartford Borough Council (2010) Strategic Housing Market Assessment

[33] ORS (2010) North Kent Strategic Housing Market Assessment

[34] Gravesham Borough Council (2012) Strategic Housing Market Assessment – Interim Update

North Kent housing market area based on evidence published in 2010. Evidence is currently being finalised to assess housing and economic needs in Gravesham and Medway;

- Updated evidence is currently being prepared for **Havering** as part of the commissioned Outer North East London SHMA, which will also cover Barking and Dagenham, Newham and Redbridge. Two separate housing market areas are identified, with the first consisting of Newham and Waltham Forest and the second containing Havering, Redbridge and Barking and Dagenham;

- The **Maldon** SHMA[35] was published in September 2014, and followed a similar methodology to that adopted for Brentwood and Chelmsford. This suggests that Maldon can be considered as a self-contained authority, although there are recognised migration and commuting relationships with Basildon; and

- The **Medway** SHMA[36] was published in October 2013, and considers need within the local authority on the basis that the authority acts as a self-contained housing market. No links are therefore identified with TGSE, and – given that the authority was also covered by the earlier Kent and Medway SHMA[37] – this suggests that Medway has a stronger relationship with Kent than South Essex.

2.47 Overall, the evidence suggests that there is limited overlap in the definition of housing market areas, with the most important suggestion being that Basildon will need to maintain Duty to Co-operate discussions with Brentwood, Chelmsford and Maldon given evidenced migration and commuting flows. These authorities are, however, considered to represent self-contained housing market areas in their own rights.

National Research

2.48 In 2010, the National Housing and Planning Advice Unit (NHPAU) and DCLG published a national piece of research[38] which sought to consider the best approach to dividing the country into non-overlapping housing market areas through a consideration of commuting and migration trends, as well as standardised house prices.

2.49 The research defined a two-tier structure of strategic and local housing market area geographies, with the former built from an assumption of 77.5% containment of commuting and the latter developed based on an assumed 50% self-containment of migration. Each is considered separately below, although it is important to note that this methodology differs from that advocated within the PPG, where a 70% migration containment threshold is suggested. It is also heavily reliant upon 2001 Census data, which has now been superseded with the release of more up-to-date information from the 2011 Census analysed earlier in this section. These definitions should therefore be treated with limited weight, but nevertheless provide valuable context on relationships between different authorities.

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[35] DCA (2014) Maldon Strategic Housing Market Assessment

[36] ORS (2013) Medway 2035 Strategic Housing Market Assessment Update

[37] DTZ (2010) Kent and Medway Strategic Housing Market Assessment

[38] DCLG (2010) Geography of Housing Market Areas

Strategic Housing Market Areas

2.50   The following map shows the strategic housing market area covering the five TGSE authorities, including any adjoining areas.

Figure 2.15: Strategic Housing Market Areas
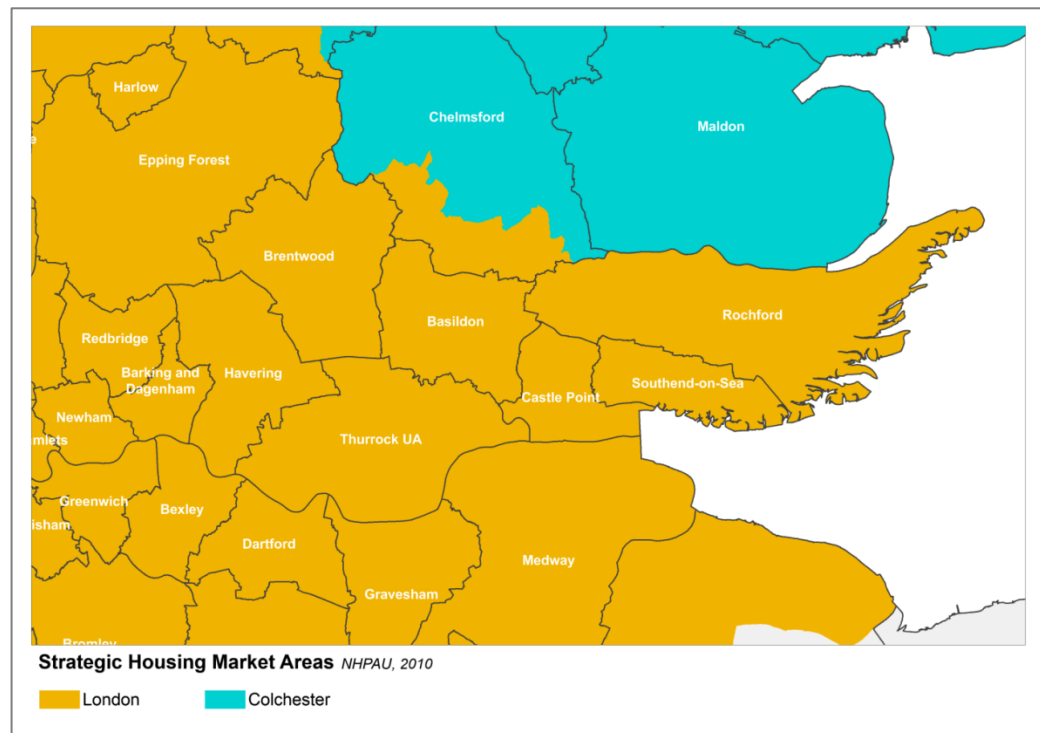
Source: NHPAU/DCLG, 2010

2.51   The five TGSE authorities are all covered by a London strategic housing market under this definition, with only a limited relationship with authorities to the north which are covered by a Colchester market area. This reflects the use of primarily commuting trends in this definition, with the analysis earlier in this note clearly highlighting the strong economic relationship with London, with significant commuting flows. Identifying a geography of this scale, however, does present challenges in developing evidence and local planning policy, as noted within the accompanying report:

"The more fine-grained differentiation of multiple housing markets within a major urban area will also be missed – the latter is most obvious in London where much of Greater London is identified as a single Framework HMA. It is in such areas that an additional lower-tier geography can reflect more localised housing market conditions, and it is notable that it is in such areas that separate lower-tier HMAs are mostly identified…

"While the Framework HMAs may provide a useful macro perspective for central government to plan for housing, they would be less appropriate in informing day to day planning decisions at the local authority level because housing behaviour as reflected from migration analysis is very localised and developers and house builders will respond

by providing different types of housing according to very sophisticated local and sub-market demands"[39]

2.52   Furthermore, with this definition based on commuting containment, this is inherently skewed by the economic role of London as a major place of employment. This does not necessarily reflect containment of migration, house prices or changing commuting dynamics, which are all indicators suggested in the PPG when looking to define housing market areas.

Local Housing Market Areas

2.53   The following plan illustrates local housing market areas in TGSE, including neighbouring areas.

Figure 2.16: Local Housing Market Areas
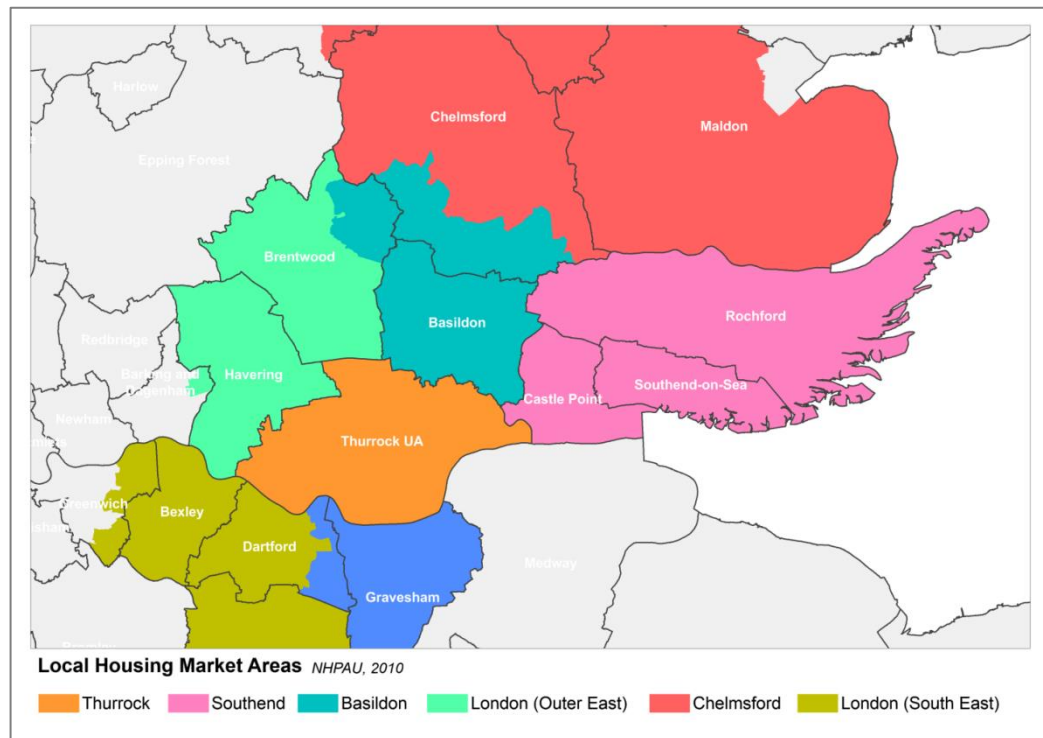
Source: NHPAU/DCLG, 2010

2.54   There is a more fragmented picture under this definition, with the TGSE area split into three local housing market areas. The Basildon housing market area covers the entirety of the borough, and also extends into Chelmsford and Brentwood, while the Thurrock local housing market is entirely self-contained within the borough boundaries. The Southend local housing market area also covers Rochford and Castle Point, although – overall – this indicates that there is a broad containment of local markets within TGSE, albeit with a slight extension into Brentwood and Chelmsford.

2.55   It is important to acknowledge that the DCLG research drew upon 2001 Census data which has now been – at least partially – updated through the release of 2011 Census

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[39] Jones, Coombes and Wong (2010) Geography of Housing Market Areas in England – Summary Report (p26)

data. These more recent datasets are considered earlier in this section, and should evidently carry more weight given that they represent an up-to-date evidenced position on migration flows. The earlier analysis also aligns more closely with new guidance in the PPG, where a 70% migration containment threshold is suggested as opposed to the assumed 50% containment in the DCLG research. This lower containment assumption is likely to be a driver in the definition of Thurrock and Basildon as more self-contained housing markets.

Conclusion

2.56 The evidence presented in this section suggests that it is appropriate to consider Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock as a single housing market area, in line with the PPG. This reflects the relative containment of moves within the area, with 73% of people moving from an address within these authorities remaining within the wider geography, according to the 2011 Census. There are, however, important migration flows from London, and this is a key demographic driver of growth in the authorities that will be considered further within the SHMA, accounting for a particularly high proportion of moves to Thurrock in particular. It is, though, evident that the five authorities can be considered separately from London as an individual functional housing market area, primarily due to a containment of moves within this geography and notably different price characteristics.

2.57 However, it is important to recognise that a number of authorities show higher levels of containment of moves, particularly when London is excluded, with Southend-on-Sea and Thurrock approaching the 70% self-containment threshold suggested in the PPG when moves from London are excluded. This does not change the conclusion that the five authorities collectively function as a single housing market area, but will be important to consider in distributing need within the HMA.

2.58 House prices have grown at different rates across the five authorities, although – based on average prices in 2014 – there is a broad commonality across TGSE, with house prices lower than in many other areas within a wider geography.

2.59 Commuting also provides important context, with around 65% of people living in TGSE also working in the area. This differs between authorities, with Southend-on-Sea, for example, seeing a much higher level of containment, whereas Thurrock sees a higher level of leakage out of this wider geography. The relationship with London as a place of work is significant, although Basildon and Southend-on-Sea also act as attractors of significant commuting flows. Indeed, the latter draws around 92% of its workforce from TGSE, while only around one in five workers in TGSE live outside of the five authorities. This suggests that people working in the area are more likely to live within the area, which can be reflected in housing search patterns should these workers decide to move home.

3. Demographic Projections of Need

3.1   The PPG establishes that household projections published by DCLG should provide the 'starting point' for assessing housing need, with the latest published dataset available to inform this SHMA the 2012-based household projections[40]. The household projections are trend-based by nature, essentially showing how the number of households – and the underpinning population – may change if past demographic trends continue.

3.2   However, the PPG does suggest that the 'starting point' can be adjusted, recognising factors affecting local demography and household formation rates[41]. This section therefore provides an overview of the 'starting point' – the 2012-based household projections – and also considers a range of alternative scenarios to test the impacts of different demographic assumptions in line with the PPG.

3.3   Within this section, these variant scenarios focus primarily on the underpinning projected change in population. Analysis of the projected change in household formation rates in the latest DCLG dataset by age group has been used to assess the extent to which they represent a reasonable projection of household growth. Further consideration is given to household formation rates within section 5, in the context of market signals analysis which provides a more detailed understanding of the extent to which household formation has been affected by historical factors such as under-supply and worsening affordability of housing, as stated in the PPG.

3.4   The analysis in this section draws upon the detailed demographic analysis of the TGSE housing market area included in Appendix 2. This evidence has primarily been compiled by Edge Analytics, following detailed analysis of the demographic history of the area and the implications for trend-based projections.

The 'Starting Point'

3.5   The 2012 sub-national household projections (SNHP) were released in February 2015, representing a full new official dataset published by DCLG. This forms the 'starting point' for assessing housing need, as set out in the PPG.

3.6   The 2012 SNHP is underpinned by the population growth projected under the 2012 sub-national population projections (SNPP), published by ONS. The 2012 SNPP dataset was released in May 2014, and provides the latest official benchmark for the analysis of population growth, taking full account of the 2011 Census.

3.7   The 2012 SNHP have been derived through the application of projected household representative rates – also referred to as headship rates – to a projection of the private household population, disaggregated by age, sex and relationship status.

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[40] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

[41] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_017

3.8   Household growth is converted to dwellings for each authority through the application of individual vacancy rates, which – as confirmed by a recent High Court decision[42] – should be included within the objective assessment of need to reflect how stock is used. Vacancy rates are derived from the 2011 Census, and set out below.

Figure 3.1:   Applied Vacancy Rates

Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock
1.7%	3.3%	2.6%	5.0%	2.4%

Source: Census 2011

3.9   Figure 3.1 illustrates that levels of vacancy vary across the TGSE authorities. Across TGSE, 3.2% of dwellings were not occupied by a household in 2011. This falls broadly in line with the national average vacancy rate of 4.1%.

3.10   The Census indicates that Southend-on-Sea has the highest vacancy rate, potentially reflecting the distinct nature of parts of its stock in the more inner urban areas. Within the SHMA, no assumption has been made regarding the re-use of vacant property within the existing stock. This falls outside of the objective assessment of need, and requires separate consideration as policy is developed.

3.11   The following table shows the projected growth in population and households across TGSE and for each constituent authority. This shows change over the projection period used in this report, which runs from 2014 to 2037.

Figure 3.2:   2012 Population and Household Projections 2014 – 2037

	Change 2014 – 2037				Average per year	
	Population	%	Households	%	Net migration	Dwellings
Basildon	26,766	15.0%	14,900	19.9%	351	659
Castle Point	10,327	11.6%	6,368	17.1%	702	286
Rochford	10,560	12.5%	5,934	17.3%	474	265
Southend-on-Sea	30,394	17.2%	18,528	24.1%	841	848
Thurrock	37,511	23.1%	18,586	28.8%	396	828
TGSE	**115,558**	**16.7%**	**64,316**	**22.4%**	**2,764**	**2,886**

Source: Edge Analytics, 2015

3.12   Across TGSE, it is evident that the 2012-based projections expect considerable growth in both population and households. The scale of population growth (16.7%) compares to a projected growth of 14.6% for England as a whole. When looking at household growth,

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[42] Borough Council of Kings Lynn and West Norfolk v Secretary of State for Communities and Local Government, ELM Park Holdings Ltd [2015] EWHC 2464 (Admin), 2015 WL 4938258, 9th July 2015

it is also apparent that the 22.4% growth in households in TGSE is slightly higher than the projected growth rate of 21.3% for England.

3.13   At a headline level, this scale of growth suggests a sustained high need for housing, with a resultant need for approximately 2,886 dwellings per annum over the full projection period. This level of need accommodates the natural growth of the population – births minus deaths – but also assumes a strong level of annual net migration, equivalent to almost 2,800 people per annum. As considered in more detail below, this reflects the historic role of the area as an attractor of people from other parts of the UK in particular.

3.14   Looking at the individual authorities, it is apparent that there is some notable variation regarding the projected scale and rate of growth. Focusing on population growth, Thurrock is projected to see the strongest growth, with a projected increase of 23.1%. In contrast, Castle Point is expected to grow by 11.2% under this dataset, with Rochford also projected to see a comparatively low level of population growth in the context of other areas.

3.15   Focusing on the projected role of migration, however, this suggests slight variation in the key drivers of growth. Castle Point and Southend-on-Sea are both projected to see the highest levels of net in-migration, with an inflow of 702 and 841 persons per annum respectively on average. In contrast, Thurrock – despite a high population growth projection – has the second lowest level of net migration, behind only Basildon. This suggests that there are other drivers of growth – primarily natural change – and this highlights the important differences between components of population change across TGSE.

3.16   The remaining elements of this section consider these factors in more detail, considering the impact of the historical context of demographic factors to understand these trend based projections in more detail. This draws upon the detailed demographic analysis undertaken by Edge Analytics, presented in Appendix 2. In presenting the demographic analysis, emphasis is placed upon analysing the data at a TGSE level, with reference made where relevant to individual component authorities. The information in Appendix 2 provides complementary detail at an authority level.

Assessing the Historic Demographic Evidence

Understanding Longer-Term Population Change

3.17   In order to understand the demographic context for TGSE, it is important to consider the longer term trajectory of population change. Figure 3.3 presents population growth based on the latest ONS mid-year population estimates[43] (MYE) between 1991 and 2014.

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[43] Between successive Censuses, population estimation is necessary, with the ONS releasing annual estimates of population counts for each authority. These mid-year population estimates (MYEs) are derived by applying 'components of population change' (i.e. counts of births and deaths and estimates of internal and international migration) to the previous year's MYE.

Figure 3.3:   TGSE Mid-Year Population Estimates, 1991- 2014
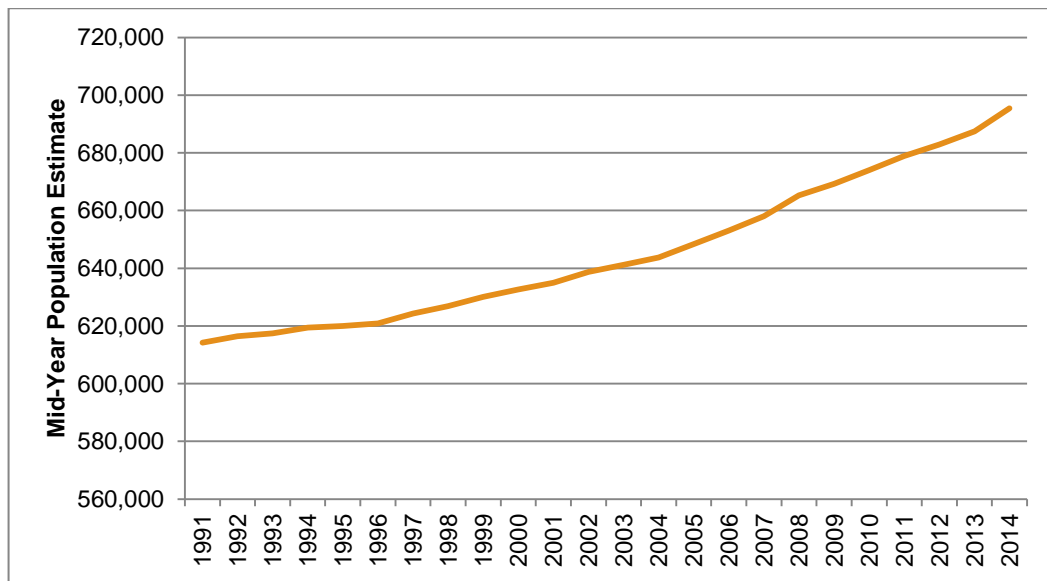
Source: Edge Analytics, 2015 (from ONS mid-year population estimates)

3.18   TGSE has seen a sustained period of population growth since 1991. More recent levels of growth exceed those seen in the first half of the historic period presented, with overall growth of 13.2% recorded between 1991 and 2014.

3.19   Whilst the pre-recession period (2004 – 2007) saw the overall highest rate of growth, there was no marked slowdown in growth from 2008 as the national economy fell into recession. The most recent year of data implies a strong level of growth, which exceeds that seen over preceding years.

3.20   At an individual authority level, there are some notable variations. Since 1991, Thurrock has seen the highest rate of population growth – almost 27% – with Castle Point recording the lowest rate of growth at only 2.3%. Across the remaining three authorities, Basildon, Rochford and Southend-on-Sea all saw relatively comparable growth rates of around 10%.

3.21   The historic profile of population growth for each authority is underpinned by the different components of change related to migration and natural change factors (births and deaths). These components of change have been considered in detail within Appendix 2, while Figure 3.4 shows how the components have changed over the more recent period since 2001 in each of the authorities.

3.22   In considering the charts, population change is shown annually as being made up of the balance between:

•   **Internal migration** – net flow resulting from moves to and from other parts of the UK;

•   **International migration** – net impact of immigration and emigration to and from the authority; and

- **Natural change** – the net effect of births minus deaths.

3.23 It is important to note that the charts also show a fourth component labelled unattributable change. Following the 2011 Census, the 2002–2010 MYEs were 'rebased' to align with the 2011 MYE, and to ensure the correct transition of the age profile of the population over the decade to 2011.

3.24 The ONS did not explicitly assign the identified adjustment to any of the components of change. Instead, they presented it as a standalone 'unattributable population change' (UPC) component, suggesting that they were not able to accurately identify the source of the 2001-2011 mis-estimation. This is therefore displayed separately on each of the charts.

Figure 3.4:   Components of Change 2001-2014
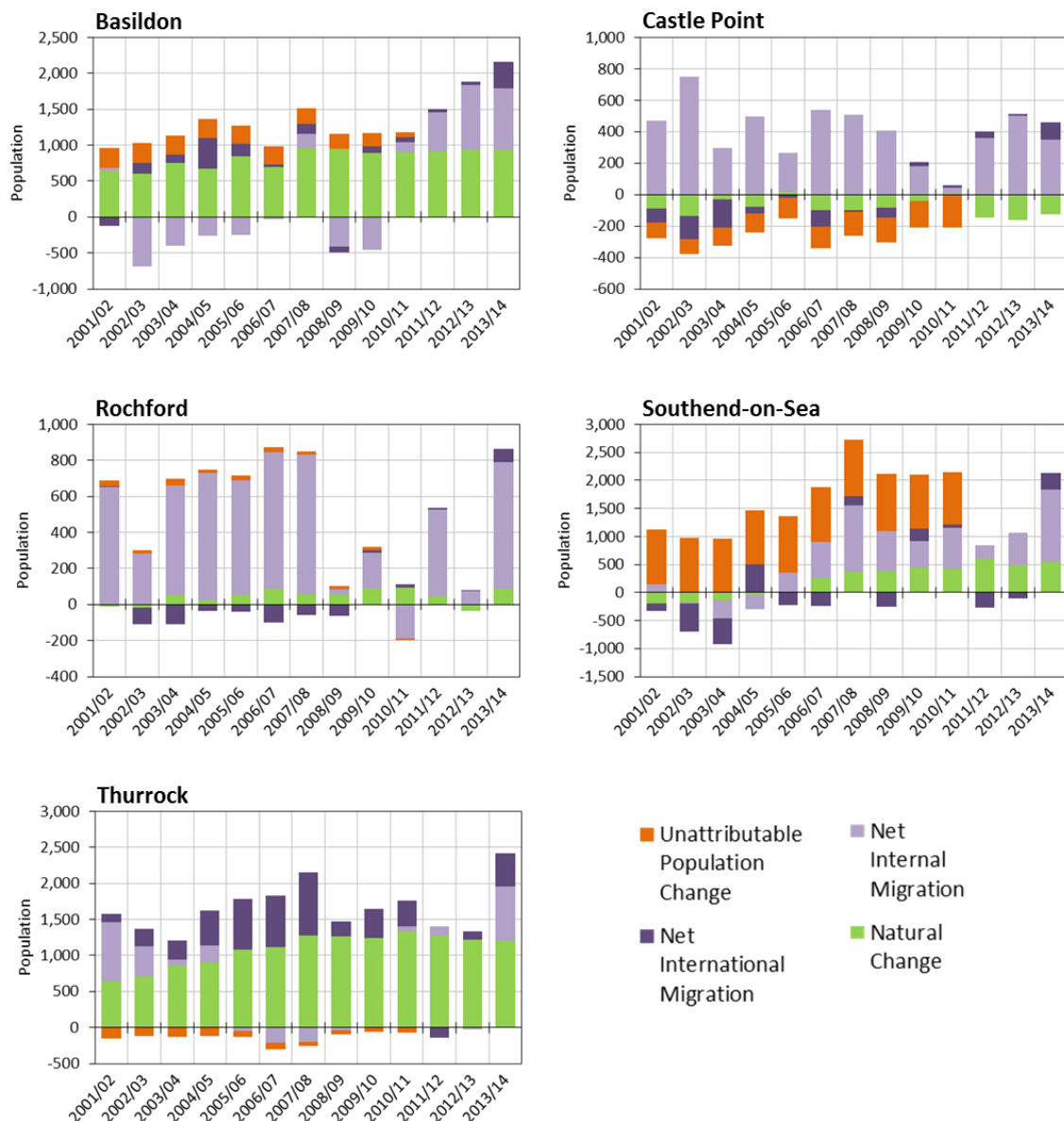
Source: ONS, Edge Analytics, 2015

3.25   It is apparent that the effect of each of the components of change on the overall population growth over this historic period varies to a significant degree between the TGSE local authorities.

3.26   In Basildon, natural change has consistently represented the main driver of population growth. The impact of net internal and net international migration varies over time, with net internal migration having had increasingly positive effect since 2010/11. With the exception of 2007/08, it is important to note that this component had represented a negative factor in Basildon, with the more recent trends therefore appearing to represent a departure from a longer-term picture that was evident prior to and following the recession. International migration is not shown to represent a significant contributor to population growth in the authority, although the last year's MYE does show a comparatively strong net flow in the context of the historic picture. The population estimates in Basildon were subject to slight positive adjustment due to the under-count over the 2001-2011 decade by the ONS, but this represents a comparatively small level of correction in the context of the growth seen.

3.27   The net internal migration component maintains the largest positive impact on population change in Castle Point. In the period preceding the recession, there was variation in the annual scale of growth, with levels in 2002/03 comparatively high in the context of the following three years. The lowest level was seen in 2010/11 which did follow a general downwards trend following the recession. The last three years, however, have seen a return to the stronger levels of growth seen prior to 2008/09. In addition, since 2009/10, the net international migration component has changed from having a small negative impact to having a small positive impact on Castle Point's population. The natural change component has not historically represented a significant contributor to population change, but it has been relatively consistent in contributing to lowering the population growth in the area, with deaths exceeding births in all years from 2001-2014, except in 2005/6 and 2010/11. The UPC adjustment has a negative impact on population growth, suggesting there was an over-count of Castle Point's population between 2001 and 2011.

3.28   As with Castle Point, the key driver of population growth in Rochford has been the net internal migration component. However, after a consistently positive impact in the first part of the period (2001/02 – 2007/08) – essentially up to the recession – the level of net internal migration fluctuated considerably in the following five years. It is, however, estimated as having returned to its pre-recession level in 2013/14. In comparison, the effect of net international migration and natural change on Rochford's population was limited throughout the period shown. Similarly, the UPC adjustment had a small positive impact, indicating a minor under-count of the population between the 2001 and 2011 Censuses.

3.29   Over the period shown, Thurrock experienced similar levels of natural change to Basildon. Again, this is the key driver of the area's population growth. Both net internal and net international migration had a varied but largely positive impact on Thurrock's population, albeit to a lesser extent than natural change. In the years prior to the onset of the recession, the authority saw a slightly negative internal migration change, although there is little evidence of the recession having a significant impact on the components of growth within the authority. There was a small negative UPC adjustment

applied as a way of correcting the minor over-count of population in Thurrock during the 2001-2011 decade.

3.30 According to the ONS MYE, the impact of individual components of change on Southend-on-Sea's population varied considerably over the period from 2001 to 2014. The negative effect of natural change at the beginning of the time period reversed to maintain a small but consistently positive impact from 2006/07 onwards. Net internal migration became the major driver of population growth from 2005/06 to 2010/11, with this trend pre-dating the onset of the recession. This component has formed a relatively consistent contributor to population growth over this period with some level of variability over more recent years. After a substantial reduction in 2011/12 and 2012/13, it increased again in 2013/14 to a level which was approximate to the previous highest level in 2007/08. Net international migration had a relatively modest impact on population growth in the area, fluctuating between net inflow and outflow throughout the whole of the period presented.

3.31 The estimated population of Southend-on-Sea was subject to a very substantial upward adjustment attributed to UPC. Edge Analytics has undertaken further analysis of the underpinning demographic data in Southend-on-Sea in recognition of the scale of UPC. The analysis considers the ONS data in the context of GP registration data, highlighting that an element of the mis-estimation of the population is likely to result from an issue associated with an under-count in the 2001 Census. However, Edge Analytics highlight that it is difficult to accurately verify the source of such a significant adjustment, on the basis of data available. In this context, consideration has also been given to the ONS's analysis of UPC and their authority level consideration of the causes of discrepancies between rolled forward estimates of population change and the Census based estimates for 2011[44]. This also confirms that whilst some element of the difference may result from issues relating to rolling forward from the 2001 Census, under-estimation of migration (internal and international) and an over-estimation of emigration flows are also likely to have contributed to the scale of UPC in the authority. Collectively, this presents a challenge in establishing the most appropriate use of historic evidence for the authority. This is considered further in the following section through an appraisal of the 2012 SNPP in the context of demographic evidence.

Appraising the 2012 Sub-National Population Projections (SNPP)

3.32 The 2012 SNPP form an important benchmark and starting point for understanding how the population of the HMA may change and therefore future housing needs. Within this sub-section, further consideration is given to the extent to which the projections represent a reasonable projection of future demographic derived need. This is considered in the context of the demographic history summarised above, and the further analysis presented in Appendix 2.

Projected Components of Change
3.33 The following table compares the underlying components of change in the 2012 SNPP dataset with a five year and ten year picture at a TGSE level. This forms an important

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[44] 'Further understanding of the causes of discrepancies between rolled forward and census based local authority mid-year population estimates for 2011' ONS (17th September 2015)

context in understanding at a headline level the alignment of the projections with historic trends.

Figure 3.5:   Annual Historic and Projected Components of Change – TGSE

Component of Change	Historical		Projected
	5 year average (2007/08 – 2011/12)	10 year average (2002/03 – 2011/12)	2012-based SNPP average (2012/13 – 2036/37)
Natural Change	2,644	2,125	2,282
Net Internal Migration	1,223	1,080	2,706
Net International Migration	359	332	-24
Unattributable Population Change*	747	895	–
Annual Population Change	**4,963**	**4,410**	**4,964**
% Annual Change	0.75%	0.69%	0.73%

* UPC is only applicable to the years 2001/02 – 2010/11

Source: ONS, Edge Analytics, 2015

3.34   Figure 3.5 shows that the 2012 SNPP projects a level of population growth which is more closely comparable to the more recent five year trend than the longer term ten year trend. Reflecting on the longer-term population profile in Figure 3.3, this suggests a continuation of the more recent strong levels of growth.

3.35   Overall, the analysis of the underlying components of population change shows that the average annual impact of natural change in the 2012 SNPP is relatively consistent with the five year (2007 – 12) and ten year (2002 – 12) averages.

3.36   Net internal migration to TGSE is projected to be substantially higher in the 2012-based SNPP than recorded annually over the past five and ten years, accounting for 55% of change (+2,706 per annum) to 2037, compared to 25% (+1,223 per year) in the last five years and 24% (+1,080 per year) in the last ten years.

3.37   In contrast, the impact of international migration is much reduced. Regarding UPC, it is important to note that ONS has not included this component in its calculations of future trends that underpin the 2012-based SNPP[45]. Even taking account of this consideration of the UPC component, the reduction in the projected input of international migration is notable in the context of the historic trends. This will to some degree be due to net international migration assumptions at the national level within the 2012 SNPP. In this context, it is important to note that for England, the 2012-based SNPP assumes an average annual impact of international migration at +151,552 per year over the forecast

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[45] '2012-based Subnational Population Projections for England. Report on Unattributable Population Change' (ONS, 20 January 2014)

period, compared to the five- and ten-year averages of +204,288 and +213,612 per year respectively.

3.38   Comparable tables for individual authorities are presented in Appendix 2, with a composite table presented below.

Figure 3.6:   Annual Historic and Projected Components of Change by Authority

	Natural change	Net internal migration	Net international migration	Unattributable population change*	Annual population change	% annual change
Basildon						
5 year historic	925	-4	55	135	1,111	0.65%
10 year historic	820	-163	117	201	972	0.58%
2012 SNPP	**820**	**320**	**13**	**–**	**1,152**	**0.65%**
Castle Point						
5 year historic	-73	301	1	-138	89	0.10%
10 year historic	-69	384	-49	-128	136	0.16%
2012 SNPP	**-242**	**688**	**-11**	**–**	**435**	**0.49%**
Rochford						
5 year historic	69	256	-16	9	320	0.39%
10 year historic	54	436	-46	17	453	0.57%
2012 SNPP	**-12**	**478**	**-20**	**–**	**446**	**0.53%**
Southend-on-Sea						
5 year historic	445	671	-18	789	1,885	1.14%
10 year historic	215	375	-101	884	1,369	0.85%
2012 SNPP	**481**	**960**	**-135**	**–**	**1,306**	**0.75%**
Thurrock						
5 year historic	1,277	-1	337	-50	1,559	1.03%
10 year historic	1,105	49	411	-79	1,481	1.02%
2012 SNPP	**1,236**	**259**	**130**	**–**	**1,624**	**1.02%**

* UPC is only applicable to the years 2001/02 – 2010/11

Source: ONS, Edge Analytics, 2015

3.39   The average annual impact of natural change suggested in the 2012-based SNPP for Basildon, Southend-on-Sea and Thurrock is fairly consistent with the historical trends. In

Basildon, the 2012-based SNPP average natural change impact is in line with the 10 year historical trend and not too dissimilar to the 5 year trend. In Southend-on-Sea, the 2012-based SNPP suggests the average annual impact of natural change is higher than either the 5 or 10 year trend but relatively close to the former. The 2012-based SNPP assumes the level of population growth through natural change in Thurrock to be fairly consistent with both the 5 and 10 year historical trends. In contrast, in Castle Point and Rochford the 2012-based SNPP suggests the impact of natural change is notably different to the historical trends. In Castle Point, the 2012-based SNPP implies a higher negative impact of natural change than either of the historical trends. In Rochford, the 2012-based SNPP assumes a small negative impact of natural change compared with the relatively small but positive effect suggested by the 5 and 10 year trends.

3.40 In all areas, the average annual impact of internal migration is higher in the 2012-based SNPP than the historical trends would suggest. In Basildon, the 2012-based SNPP assumes a considerable positive impact of net internal migration over the 25-year period, despite the fact that historically the area has experienced net out-migration (although this appears to have reduced in the 5 year trend). In Castle Point, Rochford and Thurrock, the 2012-based SNPP suggests a substantial positive impact of net internal migration, even though the historical trends suggest a reduction in the impact of net internal migration. In Southend-on-Sea, the increase in the positive impact of the net internal migration projected in the 2012-based SNPP is significantly higher than evident in the historic 10 year trend in particular and higher – albeit to a lesser extent – than the 5 year trend.

3.41 In line with historical evidence, the 2012-based SNPP suggests a limited impact of net international migration on the authorities' population growth. In Basildon and Thurrock, the 2012-based SNPP assumes lower positive impact of net international migration than the 5 and 10 year historical trends. In Castle Point and Rochford, the 2012-based SNPP suggests a small negative impact of net international migration, sitting between the levels implied by the 5 and 10 year trends. In Southend-on-Sea, the 2012-based SNPP assumes a marginally higher negative impact of net international migration then either of the historical trends.

3.42 Looking at the cumulative impact of the components of change (including the UPC in the historical trends) on the percentage annual population change shows that the overall population growth in Thurrock and Basildon suggested in the 2012-based SNPP is similar to the 5 and 10 year historical trends. In Rochford, the 2012-based SNPP assumes annual population change more closely aligned with the 10 year historical trend, which is higher than the 5 year trend. In Castle Point, the 2012-based SNPP implies notably higher annual population growth than both of the historical trends would suggest. In Southend-on-Sea, the 2012-based SNPP assumes annual population growth lower than in the historical trends, but not too dissimilar to the 10 year trend. However, if UPC is discounted from the historical trends, the annual population growth assumed in the 2012-based SNPP is significantly higher than that which was recorded historically for Southend-on-Sea, for both 5 and particularly 10 year trends. This needs to be considered in the context of the analysis of factors affecting UPC in Southend-on-Sea, as considered by Edge Analytics and identified in the ONS toolkit.

3.43 The PPG identifies the importance of considering the implications of factors which may have affected local demography which are not captured in past trends. One of the factors identified relates to the supply of housing over the historic period.

3.44 The analysis of market signals in section 5 compares historic rates of development against planned supply. Drawing upon historic completions data, however, Figure 3.7 presents indexed levels of development, from a base date of 2001 in TGSE against the England level, in order to illustrate how the supply of housing has changed over recent years.

Figure 3.7: Indexed Dwelling Completions 2011 – 2014 - TGSE

Source: DCLG live tables / authority monitoring, 2015

3.45 This suggests that whilst development levels largely tracked the national level to 2005/06, development fell away from 2006 – prior to the onset of the recession – before returning to more comparable rates in 2011/12. The latest year of data again suggests a fall below the national level, although this only represents a single year. This would suggest that demographic factors may have been influenced to an extent by lower levels of development between 2005/06 and 2011/12. This highlights the importance of considering the extent to which projected rates of population growth in the 2012 SNPP reflect different historic based trends. This is also considered further in the context of subsequent adjustments relating to economic and market signals.

3.46 The comparative picture of indexed completions varies notably at a local authority level, as shown in Figure 3.8.

Figure 3.8:   Indexed Dwelling Completions 2001 – 2014 – TGSE Authorities
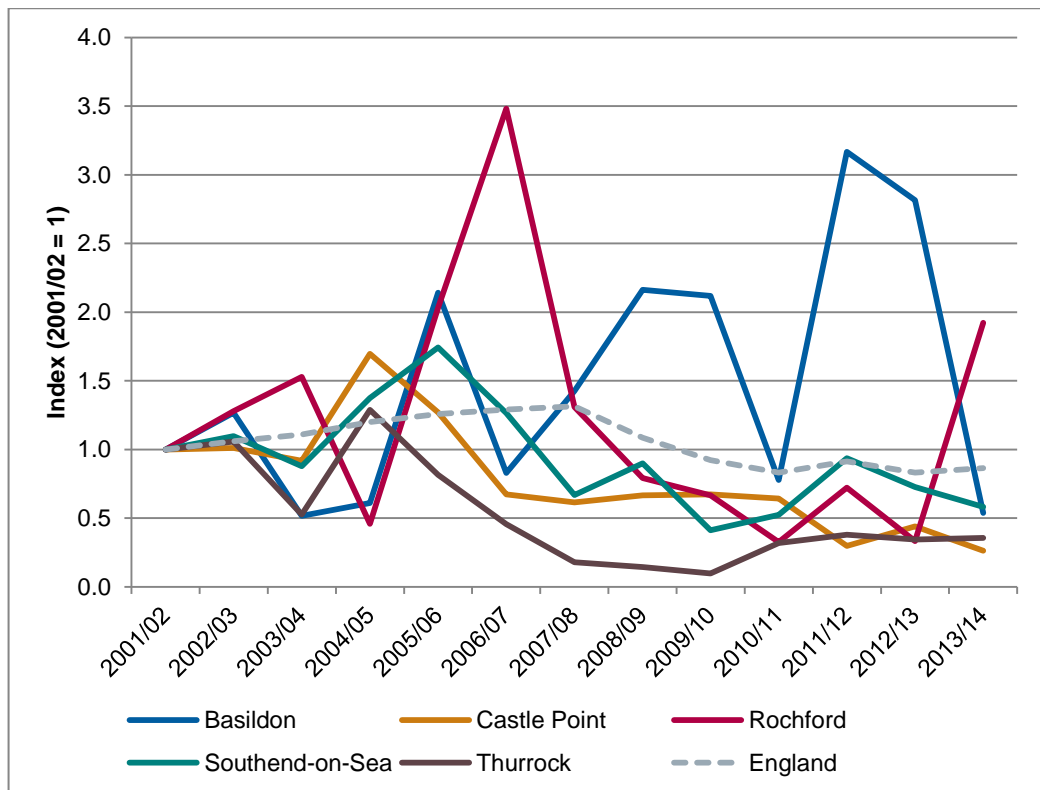
Source: DCLG live tables / authority monitoring, 2015

3.47   Basildon in particular has seen development levels considerably above the indexed rate for England. Rochford in addition saw a significant period of higher development between 2004/05 and 2007/08, with the most recent year also representing a significantly higher rate. Castle Point and Southend-on-Sea saw rates of development exceed the national indexed rate prior to the recession, albeit with more muted levels up to 2011/12. Thurrock's development levels have continued to largely consistently fall below the national indexed rate.

Contrasting Projected Change with Historic Trends

3.48   Reflecting upon the analysis above, the charts presented at Figure 3.9 benchmark the trajectory of growth under the 2012 SNPP against a series of simple forward extrapolations of historic population growth, based on various historic periods. Whilst this represents a relatively crude indicator of the alignment of growth, it provides a useful initial indication of the extent to which the population growth projected under the 2012 SNPP compares to longer term trends. It is important to note that the historic trend includes UPC, and may therefore represent a more positive trend in Southend-on-Sea than if this element was not taken into account.

Figure 3.9:   Extrapolation of Historic Population Growth Trends
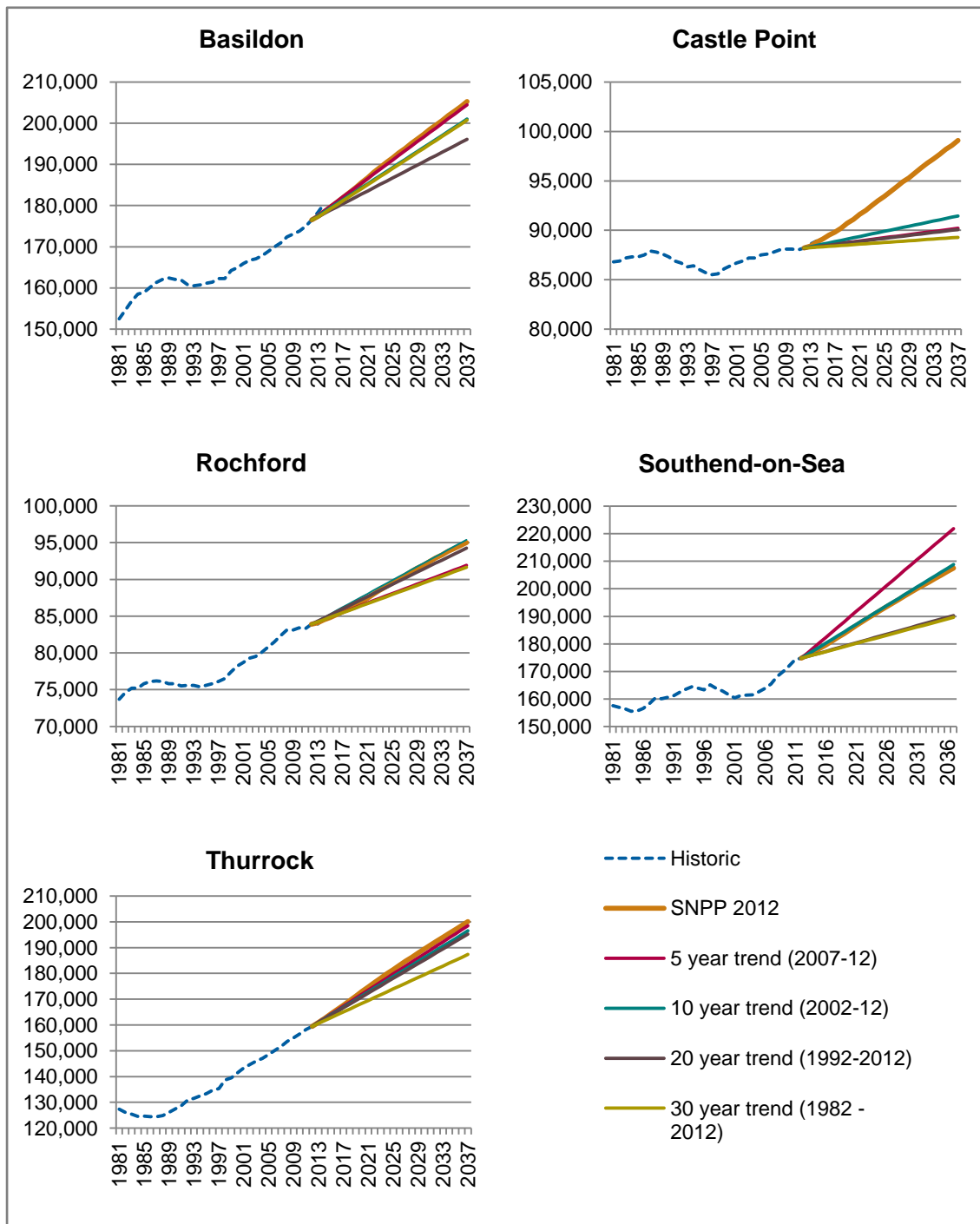
Source: ONS, 2015, Turley, 2015

3.49   For all of the authorities, it is apparent that the 2012 SNPP projects a comparatively positive level of growth in the context of an assumed continuation of historic trends. For all but Southend-on-Sea, it shows a level of growth at the upper end of the extrapolations or in the case of Castle Point a notably higher level of growth. For Southend-on-Sea, the 2012 SNPP projects a strong level of growth in comparison to all but the 5 year trend, although as noted above the extent to which there are uncertainties to the historic population counts for the authority needs to be recognised.

3.50   For Basildon, it is apparent that the 2012 SNPP aligns most closely with the 5 year trend upon which the demographic inputs are primarily based. This trend is slightly higher than the 10 and 30 year trends, which show a consistent level of growth. This suggests a comparatively strong alignment with short and longer term growth trajectories. The same is also true of Thurrock, with the chart clearly showing the 2012 SNPP aligns with a consistent picture of growth over both the short and longer-term trends. The 20 year extrapolated trend is lower for Basildon, reflecting the slowdown in growth in the early 1990s identified earlier in the section.

3.51   For Rochford and Southend-on-Sea, the 2012 SNPP projection of growth aligns most strongly with the 10 year trend. In the case of Rochford, this is a slightly higher level of projected growth than the 5 year trend would suggest. This shorter-term trend is, however, more closely aligned with the longer-term 30 year trajectory. For Southend-on-Sea, by contrast, the projected growth in the 2012 SNPP falls slightly below the 5 year trend, but notably above the longer term 20 and 30 year trends.

3.52   Castle Point stands out with regards to the fact that the 2012 SNPP projection does not directly align with any of the historic trend based extrapolations. The projected growth under the 2012 SNPP sits notably above the historic trends for population growth in the authority.

Considering the Latest Demographic Evidence

3.53   Following publication of the 2012 SNPP dataset, the ONS has continued to release annual estimates of population. The following table compares population growth projected under the 2012 SNPP – including components of change – for the TGSE area with the 2013 and 2014 MYE datasets.

Figure 3.10: TGSE 2012 SNPP and Mid-Year Population Estimates

	2012 SNPP[46]	MYE
2012 MYE	**682,932**	**682,932**
Natural Change	2,300	2,430
Net Internal Migration	1,500	2,195
Net International Migration	100	88
Other Change	0	-155
2013 MYE	**686,800**	**687,490**
Natural Change	2,600	2,658
Net Internal Migration	1,800	3,914
Net International Migration	100	1,316
Other Change	0	27
2014 MYE	**691,500**	**695,405**

Source: ONS, 2015

3.54   It is apparent that the latest ONS 2014 MYE suggest that the population of TGSE has grown to a greater extent than projected in the 2012 SNPP. Indeed, the 2014 MYE is almost 4,000 higher over the first two year period of the projections.

3.55   Examining the components, it is evident that the most significant contributing factor is a higher estimated level of net internal migration into the area, with this consistent over both years but in particular the most recent year.

3.56   The difference between the ONS MYE and the 2012-based projection is also driven by a higher net international migration flow, particularly in the last year. Indeed, in England as a whole, international migration over these two years has been notably higher than that projected within the 2012 SNPP. While the projections expected a total net inflow of around 302,900 international migrants between 2012 and 2014, ONS estimate that the actual flow has been around 418,000 migrants. This is likely to have an impact on this component across the country, including TGSE.

3.57   Further authority level detail is presented in Appendix 2. This indicates that all of the authorities have a higher estimated population in 2014 than the 2012 SNPP suggested. This is particularly true of Basildon, which makes up approximately half of the difference across the TGSE area (2,012 persons). Southend-on-Sea and Thurrock also see comparatively large differences of 831 and 670 persons respectively. Castle Point and Rochford show a much closer alignment.

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[46] Rounded figures presented

3.58   While it is acknowledged that this is based on only two years of a long-term population projection, these factors form an important context for considering the extent to which the 2012 SNPP may potentially serve to underestimate projected growth in the area.

3.59   The release of the 2014-based SNPP dataset in May 2016 will form an important update for considering the impact of more recent population data on the trend-based projections.

3.60   In advance of the release of this dataset and noting the difference in the estimated flows of migration from other parts of the UK (internal migration) and the analysis of the flow of people in section 2, it is important to consider further the potential implications of the strong migration relationship with Greater London. This is considered later in this section.

Sensitivity Testing – Variant Demographic Projections

3.61   There is no single definitive view on the likely level of growth expected in TGSE. A mix of economic, demographic and national or local policy issues will ultimately determine the speed and scale of change.

3.62   Following the analysis of the assumptions underpinning the 2012 SNPP, it is reasonable to undertake a process of sensitivity testing in relation to variant trend-based demographic projections. This follows guidance in the PPG:

"Plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates"[47]

3.63   Edge Analytics has used POPGROUP technology to develop a range of trend growth scenarios for the TGSE area. The POPGROUP modelling prepared uses the historic demographic evidence to define future migration *rates* for internal migration, and fixed migration *counts* for international migration. This is consistent with the ONS SNPP methodology, as is the application of migration rates to an external 'reference' population, which is defined by those areas with which there are historically significant migration links. This ensures a level of integration within the modelling, which is important – in the ONS model – to ensure that sub-area projections sum to the national level.

3.64   In line with the PPG, the most recent official 2012-based population and household projections have been considered. A series of further scenarios based on the most recent five (2009/10 – 2013/14) and ten year (2004/05 to 2013/14) past growth periods have also been developed, taking account of the latest ONS MYE datasets and effectively rebasing projections to 2014. These scenarios have been developed to both include and exclude UPC to illustrate the impact of this demographic component on projected population change.

3.65   Each scenario has been evaluated using the latest 2012-based household headship rates from DCLG. This provides an alternative 'range' of household and dwelling growth

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[47] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_017

options for consideration, with all scenarios produced using a 2014 base year and a horizon of 2037. The variant demographic forecasts therefore take full account of the latest ONS MYE datasets, noting as per Figure 3.10 that these have indicated that the population across TGSE has grown at a greater rate than projected within the 2012 SNPP.

3.66 Figure 3.11 presents the outputs of the modelling of these variant past growth scenarios, with UPC excluded from these scenarios and the 2012 SNPP also presented for comparison. This recognises that within the 2012 SNPP the ONS also did not seek to directly include UPC in the projections. This is presented for TGSE as a whole, with individual detailed local authority outputs presented in Appendix 2.

Figure 3.11: 5 and 10 Year Past Growth Scenarios (excluding UPC) 2014 – 2037

	Change 2014 – 2037				Average per year	
	Population	%	Households	%	Net migration	Dwellings
2012 SNPP	115,558	16.7%	64,316	22.4%	2,764	2,886
5yr Past Growth	101,331	14.6%	57,664	20.0%	2,116	2,587
10yr Past Growth	99,950	14.4%	58,188	20.2%	2,039	2,610

Source: Edge Analytics, 2015

3.67 For TGSE as a whole, the application of past growth periods up to 2014 – based on both five and ten year trends – suggests a lower level of housing need than that projected within the 2012 SNPP. The variant scenarios project forward a lower level of net migration annually than the 2012 SNPP dataset, reflecting the historical periods upon which they are based.

3.68 In this context, it is important to reconsider the potential impact of lower levels of development in this period, in particular in the 5 year historic period underpinning the 5 year past growth scenario. In this context, the 2012 SNPP presents a more positive projection of growth than a scenario which projects forward more recent historic migration evidence.

3.69 There is a more marked variation at an individual authority level, and Figure 3.12 therefore shows the implied headline housing need under the 2012 SNPP and the five and ten year trend-based scenarios – excluding UPC – for each of the TGSE authorities.

Figure 3.12: 5 and 10 Year Past Growth Scenarios (excluding UPC) 2014 – 2037

	Dwellings per annum 2014 – 2037		
	2012 SNPP	5 year Past Growth	10 year Past Growth
Basildon	659	691	624
Castle Point	286	220	259
Rochford	265	214	273
Southend-on-Sea	848	770	744
Thurrock	828	691	710
TGSE	**2,886**	**2,587**	**2,610**

Source: Edge Analytics, 2015

3.70   Looking first at the 5 year Past Growth scenario, it is evident that only in the case of Basildon does this suggest a higher level of housing need than the 2012 SNPP. This reflects the stronger levels of population growth more recently in the authority, noting (as shown in Appendix 2) that Basildon constitutes half of the higher estimation of population growth between 2012 and 2014 implied by the updated ONS population estimates. Whilst there will be a range of factors contributing to this, it is of note that the authority stands out with regards to the indexed level of completions over more recent years (Figure 3.8). In the case of the other authorities, more recent growth in population has – with the exception of Southend-on-Sea – been slightly below that seen prior to the recession. The impact of UPC, which is excluded in these scenarios, is an important factor for Southend-on-Sea, which is considered further below.

3.71   The 10 year Past Growth scenario suggests a slightly higher level of dwelling need than the 5 year scenario for all of the authorities with the exception of Basildon and Southend-on-Sea. Only Rochford, however, has an implied level of need under this scenario which is higher than the 2012 SNPP. Again, whilst there will be a number of factors contributing to population change over the period, it is of note that both Rochford and Southend-on-Sea saw comparatively high levels of development at the start of the 10 year historic trend period, broadly over the period from 2004 to 2007. In Rochford's case in particular, this level of development stands out in the recent past as a significantly higher level, and it is understood to have been associated with the delivery of a number of specific schemes.

3.72   For consistency with the modelling produced by ONS and DCLG, the scenario presented above excludes UPC. Across TGSE, this risks under-estimating future population growth throughout the population period, based on potentially under-estimated historic international migration (as shown in Figure 3.7). As noted earlier in the section, the picture is potentially more complex within Southend-on-Sea, with the potential role of the under-enumeration of the Southend-on-Sea population associated the 2001 Census a possible contributing factor to the scale of the mis-estimation in the authority.

3.73 In order to test the impact of UPC, a further set of scenarios have been developed by Edge Analytics which includes UPC, thereby integrating the correction applied following publication of the 2011 Census. The outputs of this scenario are presented below, again alongside the other scenarios introduced in this section.

Figure 3.13: 5 and 10 Year Past Growth (including UPC) 2014 – 2037

	Change 2014 – 2037				Average per year	
	Population	%	Households	%	Net migration	Dwellings
2012 SNPP	115,558	16.7%	64,316	22.4%	2,764	2,886
5yr Past Growth including UPC	107,644	15.5%	61,861	21.5%	2,312	2,777
10yr Past Growth including UPC	112,437	16.2%	65,289	22.6%	2,428	2,933

Source: Edge Analytics, 2015

3.74 The inclusion of the UPC component in the adjusted scenario presents a range which sits either side of the 2012 SNPP. The impact of UPC is less pronounced in the 5 year past growth scenario, with UPC only a factor up to 2011 (Census year) and therefore only accounted for in two years of the trend period. This continues to suggest a lower level of need across TGSE than the 2012 SNPP.

3.75 The 10 year Past Growth scenario including UPC implies a slightly higher level of dwelling need than the 2012 SNPP scenario, albeit only 47 dwellings per annum more. This is based on a lower level of projected population growth, and by implication net migration per annum, but is the result of the different demographic age profile of the population over the projection period and its translation into households based on the DCLG 2012 SNHP household formation rates. This is considered further at the end of this section.

3.76 As noted above, the ONS has explicitly not sought to directly account for UPC within its official projections. This reflects the uncertainty around how UPC is calculated and the timing of the 'error' in the counting of population. As identified within Figure 3.4, the vast majority of the UPC is in Southend-on-Sea, where the ONS suggested a significant previous under-count of population in the authority following the release of the 2011 Census with the implication being a notable positive adjustment upwards to historic levels of growth. This is reflected when looking at the impact of the variant scenarios at an authority level. This is presented in the following table.

Figure 3.14: 5 and 10 Year Past Growth (including UPC) 2014 – 2037

|	Dwellings per annum 2014 – 2037		
	2012 SNPP	5 year Past Growth including UPC	10 year Past Growth including UPC
Basildon	659	731	693
Castle Point	286	219	258
Rochford	265	230	302
Southend-on-Sea	848	922	999
Thurrock	828	676	681
TGSE	**2,886**	**2,777**	**2,933**

Source: Edge Analytics, 2015

3.77 The inclusion of UPC within the past growth variant projections has the most significant positive impact on Basildon and Southend-on-Sea. This reflects the implied under-estimation of population count in both authorities by the ONS prior to 2011.

3.78 In the case of Southend-on-Sea, as referred to earlier, Edge Analytics' detailed review of the historic demographic data suggests the historic under-estimation in the authority is likely to at least partially result from an under-count of population in the 2001 Census as well as other factors such as migration. This would imply that the adjustment overstates the under-estimation of population, suggesting that greater caution should be implied in considering the impact of this adjustment on either of the historic trend based projections. In reality, the impact is likely to sit somewhere between the two sets of trend-based projections for the authority (including and excluding UPC) with the 2012 SNPP sitting approximately mid-way between this range. On this basis, the 2012 SNPP is considered by Edge Analytics to represent an appropriate demographic projection of need for the authority.

3.79 Taking the potential over-estimation of growth of Southend-in-Sea into account with regards to these variant projections would suggest that the implied need for the whole TGSE area under both scenarios would be lower than the 2012 SNPP. This continues to reinforce the suggestion that the 2012 SNPP represents a projection of need which is more positive than the historic demographic context and therefore potentially compensates for the impact of an historic fall in the level of new housing development.

3.80 It is important to recognise that for Rochford the historic 10 year past growth scenario continues to represent an implied higher level of need than the 2012 SNPP, with the inclusion of UPC further elevating this gap. The same is also the case for Basildon in relation to the more recent 5 year past growth scenario. This forms an important consideration as to the implied potentially higher level of demographic need in both authorities than that suggested by the 2012 SNPP.

Assessing the Impact of London

3.81 The analysis of the housing market area geography in section 2 highlighted the importance of the relationship between London and TGSE. This included the identification of strong migration flows which have historically played a significant role in influencing the demographic dynamics of the area and the component authorities.

3.82 ONS population data shows that London represents a significant destination for new international migrants into the country, and is also a source of out-migrants that subsequently drive population growth into other parts of the UK outside of the Greater London boundary.

3.83 The analysis presented above has highlighted that the 2012 SNPP projects a notably higher level of net internal migration into TGSE than seen historically. It is therefore likely that this relationship already features to a degree within the projections.

3.84 In order to consider this further, Edge Analytics has undertaken a review of the historic migration relationship between TGSE and the London boroughs. Figure 3.15 presents the net flow of migrants between the two areas between 2001-02 and 2013-14, with the inflows and outflows upon which this is based also presented.

Figure 3.15: Internal Migration Flows between London and TGSE
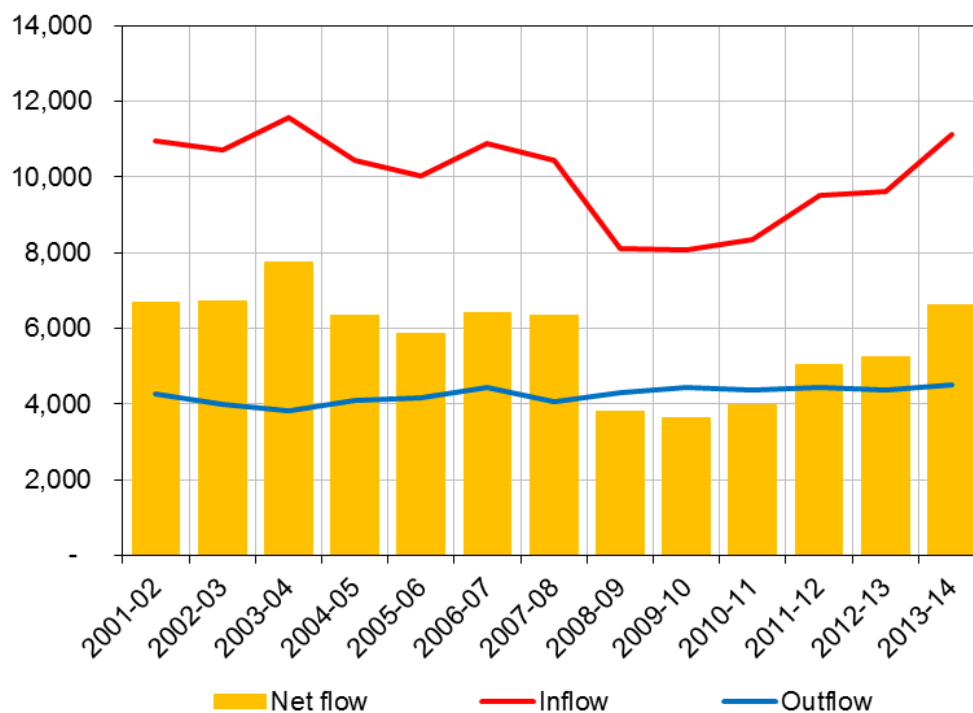
Source: Patient Register Data Service (PRDS) by ONS, Edge Analytics, 2015

3.85 The chart illustrates that in-migration from Greater London to the TGSE local authorities have been consistently higher than the corresponding out-migration to Greater London from these areas. Between 2001/02–2013/14, inflow and outflow averaged 9,983 and 4,253 respectively, with this resulting in an average net impact of 5,730 per annum.

3.86 However, in the last five years (2009/10–2013/14), the net migration balance has reduced from its thirteen-year average of 5,730 to a five-year average of approximately 4,900. With the out-migration from the TGSE local authorities to Greater London remaining fairly stable, the reduction in the average net migration growth has been due to the fall in migration levels (in-migration) from Greater London. This suggests that fewer people moved to TGSE from Greater London.

3.87 Since 2007/08, there has been a considerable volatility in the London migration effect. The flow of people from London to TGSE fell significantly after 2007/08, with this likely to represent an impact of the onset of recession. Since 2011, however, in-migration has progressively increased to reach a similar level to the pre-2008/09 values, with an associated uplift in the net migration growth in the TGSE local authorities. This means that the picture in 2013/14 shows a strong alignment with that seen prior to the recession, but notably different to that seen in 2011/12 (the base date for the 2012 SNPP/ SNHP datasets).

3.88 Further consideration is given to the comparative pictures for each of the TGSE authorities, with comparable charts to Figure 3.15 presented in Appendix 2. This shows that:

- Thurrock experienced the highest net inflow of migrants from Greater London in that period, with an average annual inflow of 2,183 migrants. The lowest net inflow was estimated in Rochford, with an average of 522 migrants per year over the 2001/02-2013/14 period;

- Basildon, Thurrock and Southend-on-Sea show a historic relationship which aligns with the TGSE picture described previously. Whilst the inflow of people from London fell notably from 2007/08, the rate of flow had returned to levels seen prior to the recession by 2013/14; and

- In contrast, Castle Point and Rochford – whilst also seeing a notable reduction in the scale of people moving from London into these authorities after 2007-08 – have not seen levels recover back to those seen prior to the recession with in-flows remaining consistently low even in the more recent years of data.

3.89 The above historical evidence highlights the important and varied implications of the migratory relationship with London. The publication of the Further Alterations to the London Plan (FALP) represents an important consideration as to how change in the population in London may have implications for TGSE beyond a continuation of trend-based projections and in particular the trends assumed within the 2012 SNPP.

3.90 Edge Analytics has used the population projection modelling underpinning the 2013 London SHMA – which forms the evidence for the FALP – to derive an alternative projection to assess the impact on population change across the TGSE and each of the component authorities. The methodological approach used by Edge Analytics is set out in Appendix 2.

3.91 Principally, this adjusted demographic scenario takes account of the variant assumptions around migration used by the GLA from the 2012 SNPP. The GLA projections assume that the outflow of migrants from London to neighbouring authorities

will increase, beyond the level implied by the 2012 SNPP, reflecting more closely pre-recession trends. This adjustment is made based on historic migration flows to and from Greater London, and effectively scales the population growth assumed under the 2012 SNPP to align with the GLA's Central scenario.

3.92   The GLA has provided detailed information on the internal migration flows that underpin its Central scenario. This scenario assumes that the out-migration rates from London would increase by 5% after 2017 and in-migration rates would reduce by 3%.

3.93   Figure 3.16 presents the outputs of this scenario for TGSE, with the 2012 SNPP scenario also presented for comparison.

Figure 3.16: London Sensitivity Scenario for TGSE 2014 – 2037

	Change 2014 – 2037				Average per year	
	Population	%	Households	%	Net migration	Dwellings
2012 SNPP	115,558	16.7%	64,316	22.4%	2,764	2,886
SNPP London	**120,094**	**17.3%**	**68,418**	**23.7%**	**2,961**	**3,070**

Source: Edge Analytics, 2015

3.94   The modelling illustrates the potential implications of the population of London changing to the extent assumed through the FALP and its evidence base and therefore a return to a relationship more closely aligned to that seen prior to the recession. Primarily as a result of higher net migration, the population would grow to a greater extent than projected under the 2012 SNPP scenario for the TGSE area.

3.95   The impact on each of the constituent authorities is more varied, with Figure 3.17 showing the levels of migration implied for each authority under the London-adjusted scenario.

Figure 3.17: Impact of London Sensitivity Scenario on Migration 2014 – 2037
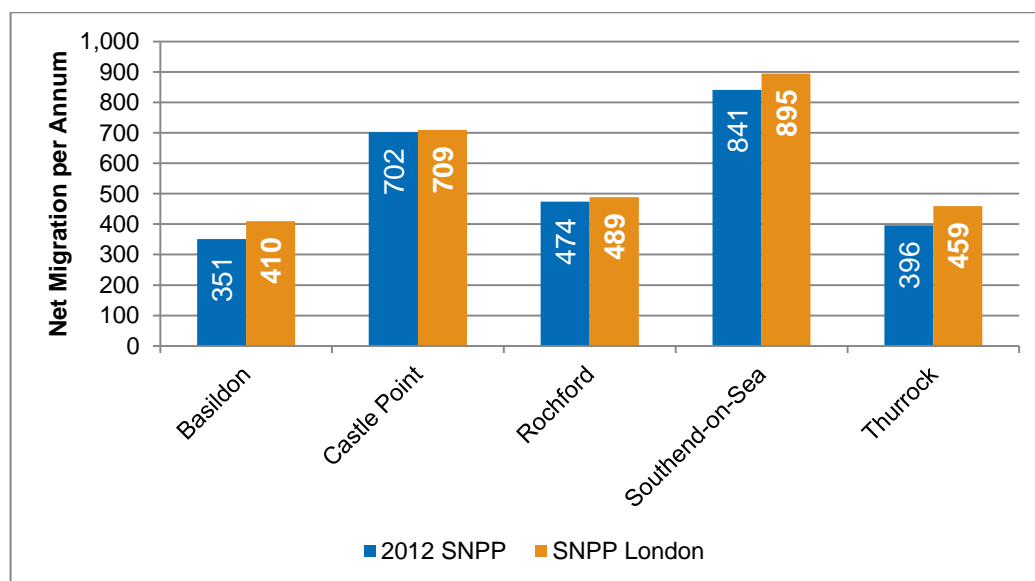
Source: Edge Analytics, 2015

3.96   Projected levels of migration for all authorities are uplifted under the SNPP London scenario, and this impacts upon the implied levels of housing need in each scenario. This is summarised in the following table.

Figure 3.18: Impact of London Sensitivity Scenario on Dwellings Required 2014 – 2037

	Dwellings per annum 2014 – 2037	
	SNPP 2012	SNPP London
Basildon	659	721
Castle Point	286	296
Rochford	265	284
Southend-on-Sea	848	895
Thurrock	828	874
TGSE	**2,886**	**3,070**

Source: Edge Analytics, 2015

3.97   The number of dwellings required in each authority increases under the SNPP London scenario. Castle Point and Rochford show the smallest absolute increases, reflecting in large part the more limited relationships with London. The other three authorities all show comparable levels of uplift, highlighting the sensitivity of projections to variations in migratory relationships with the capital.

3.98   In the case of all of the authorities except Rochford, the implied level of need under the SNPP London scenario is higher than the 10 year Past Growth scenarios, including and

excluding UPC (Figures 3.12 and 3.14). This highlights the impact of a return to pre-recession migration flows with London alongside the other projected demographic components of change collectively suggests a more positive level of growth than that based on historic trends.

3.99   In the case of Rochford, it is important to note that the implied higher level of population growth under the London scenario sits midway between the levels of growth implied by the 10 year Past Growth scenario including and excluding UPC (Figures 3.11 and 3.13). Recognising the uncertainty associated with UPC, this is therefore considered to reinforce the implications of these longer-term trend based projections for Rochford in particular.

3.100   For Basildon, the implied elevation of need under the SNPP London scenario falls slightly below that implied by the 5 year Past Growth scenario (including UPC, Figure 3.14). This in large part is likely to reflect the recent rapid uplift in the net inflow of people from London to Basildon, to a level last seen prior to 2004[48].

3.101   It is recognised that the implications of the SNPP London scenario – in changing demographic trends to align with London's own evidence based assumptions – reflects, to an extent, a policy driven approach, although this continues to be based on an alternative interpretation of migration trends. The monitoring of migration trends will be important in assessing the extent to which the relationship with London continues to change. Recognising the implications of policy in impacting upon this variant demographic projection, it will be important for the Councils to continue Duty to Co-operate discussions in order to monitor this position.

Considering Household Formation Rates

3.102   In analysing the historic demographic data, consideration has been given to the implications of changing levels of development, particularly over more recent years as a result of the recession. Whilst the ONS 2012 SNPP projections of need are directly influenced by this period, the above analysis has suggested that they appear sufficiently robust in their projections of population change in the context of longer term trends.

3.103   It is also important to consider the implications of varying levels of supply on the formation of households, with the link between a household and a dwelling evidently more direct than with the population.

3.104   As set out at the beginning of this section, the 2012 SNHP dataset published by DCLG represents the latest set of nationally produced projections. These projections are the first dataset to take account of more detailed 2011 Census data, and in this context they represent an important update to preceding datasets.

3.105   The following chart compares the projected average household size under the 2012 SNHP for TGSE, compared against projections under the 2008-based and interim 2011-based datasets.

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[48] This is shown in Figure 2.10 in Appendix 2

Figure 3.19: Comparing Projected Household Size under the 2012, Interim 2011 and 2008 SNHP Datasets
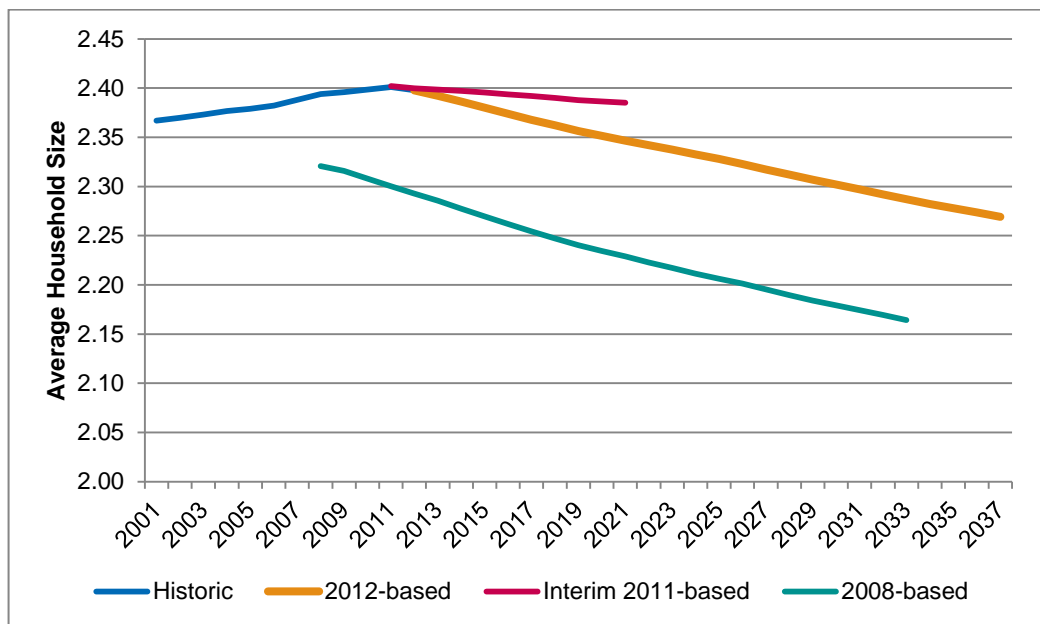
Source: DCLG, 2015

3.106 The 2012 SNHP continue to project a fall in the average household size as projected under the 2008 dataset. It is important to highlight that the results of the 2011 Census suggested that household size had not fallen to the extent projected under the 2008 dataset, however, with this reflecting a number of factors as considered in a recent TCPA paper[49]. The 2012 SNHP does, however, suggest a more positive assumption around a continuation of reducing average household sizes than the previous interim 2011 SNHP, which were widely critiqued for underestimating future household formation rates.

3.107 Edge Analytics has considered in detail historic household formation rates by age groups under the latest 2012 SNHP, comparing rates against historic evidence and the England average. This analysis is presented for each of the authorities within the TGSE area within Appendix 5.

3.108 In considering the 2012 SNHP, the TCPA paper referenced above identified a number of important trends relating to assumptions around household formation rates at a national and regional level when compared against the 2008 dataset. This included:

- An assumption that more people will be living in couples than was assumed in the 2008 projections. This reflects, at least in part, the fact that males are living longer. This is responsible for 20% of the difference between the two projections;

- The remaining 80% of the difference between the two projections comes from differences in the household formation rate projections. The 2011 Census suggested that most groups aged under 50 had lower household formation rates in 2011 than was suggested by the 2008-based projections. The lower household

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[49] 'New estimates of housing requirements in England, 2012 to 2037', Town & Country Planning Tomorrow Series Paper 17, TCPA, November 2015

formation rates for couples aged between 25 and 34 and single men aged between 20 and 24 had the biggest impact on the number of households in 2011 but affected almost all younger households to some degree; and

- The differences for couples aged under 35 are perhaps of greatest concern. For these groups, household formation rates have been falling since 1991, implying that more couples have been living in someone else's household. Moreover, the 2012-based projections suggest that the household formation rates of these groups will continue to fall, although at a slower rate than between 2001 and 2011 – a big problem for people at a key life stage. For most other groups, the new projections suggest some increase in household formation, but at a slower rate than envisaged in the 2008-based projections.

3.109 Examining the detailed household formation rate charts in Appendix 5, it is apparent that across all of the authorities the household formation rates for those younger households aged 20 – 39 has fallen in many cases from 2001 to 2011.

3.110 For the vast majority of age groups across the authorities, the projected household formation rates under the 2012 SNHP do not, however, expect rates will continue to fall further for these age groups. Where the projections do suggest a further fall in formation rates, over the projection period this is comparatively marginal and does not represent a continuation of the scale of reduction between the last two Census years.

3.111 The 2012 SNHP therefore does not appear to simply assume that this trend is sustained in the future. This suggests that the impact of factors affecting household formation over the recent historical period have been moderated to an extent. This does not suggest an adjustment being required to household formation rates in the area for the starting point projection of need.

3.112 The impact of historic market constraints is considered in further detail in section 5, when market signals are analysed. This considers whether it is justified to apply adjustments to household formation rates for younger households, in order to positively respond to any evidence of a worsening balance between supply and demand beyond the trend-based projections of household growth.

Summary

3.113 This section has summarised the detailed review of the demographic evidence undertaken by Edge Analytics. Emphasis has been placed on the implications of historic demographic factors across TGSE, and in this context, a consideration of the relevance of the 2012 SNPP as a demographic projection of need across the area. The analysis presented within this section has drawn upon the evidence presented in Appendix 2, which includes detailed modelling outputs for each of the TGSE authorities as well as the area as a whole.

3.114 The 2012 SNHP are identified as the 'starting point' for assessing housing need in the PPG, and show that the number of households in TGSE could increase by just over 64,000 – equating to on average approximately 2,800 per annum – over the projection period from 2014 to 2037. This is underpinned by population growth of approximately

115,600 – increasing the total population by 16.7% – and would generate a need for 2,886 dwellings per annum on average over this period, allowing for vacancy.

3.115 The household projections are underpinned by population projections published by the ONS, which show how the population may change if recent trends continue. The 2012-based SNPP – published in 2014 and forming the basis for the household projections – project a level of growth which is higher than the national average of 14.6% for the equivalent period. The 2012 SNPP base migration assumptions on recent trends, which have incorporated a period of slow national recovery from a significant economic recession.

3.116 The analysis in this section has considered the projected population growth implied by the 2012 SNPP in the context of longer-term historic evidence as well as more up-to-date population data published following the 2012 SNPP dataset. This demographic evidence has been considered in the context of factors such as the supply of housing in accordance with the PPG.

3.117 Edge Analytics conclude from this analysis that the 2012 SNPP represents a robust demographic starting point from which to consider housing needs across TGSE.

3.118 The annual level of housing need implied under the variant demographic sensitivity scenarios is summarised in Figure 3.20.

Figure 3.20: TGSE Adjusted Demographic Projections
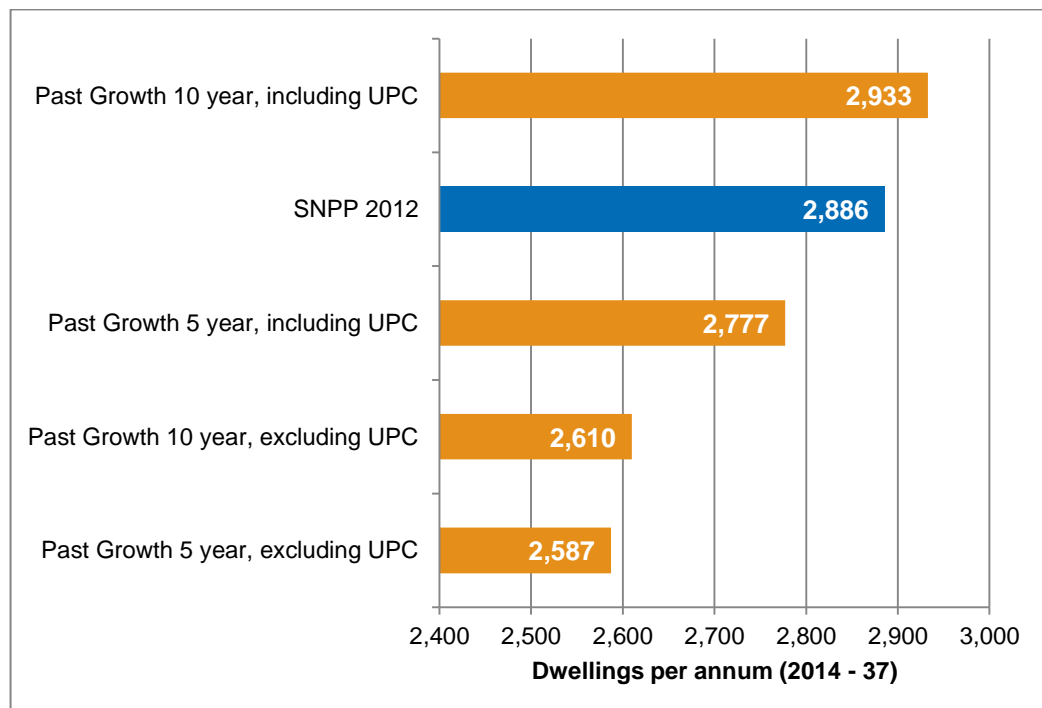
Source: Edge Analytics, 2015

3.119 The levels of projected growth under the 2012 SNPP show a more positive projection than those implied by longer term past growth scenarios, which incorporate the latest population data (2014 MYE) and use a 10 year migration trend as well as more up-to-

date 5 year trend based projections where UPC is excluded. The headline analysis of development activity highlights that the area saw comparatively low levels of development when benchmarked against the national picture, particularly through the middle part of the last decade. This therefore suggests that trends based upon the historic period may, in part at least, be reflective of this comparatively low development rate and on this basis should not be considered as being more representative of future projections of need than the higher level of growth projected under the 2012 SNPP.

3.120 Consideration has also been given to the impact of including UPC within the trend based projections. The longer-term 10 year past growth scenario, with UPC included, suggests a marginally higher need for new dwellings, albeit with a lower underpinning projection of population growth compared to the 2012 SNPP. Analysis at an authority level, however, indicates that this implied higher need is largely driven by the inclusion of UPC in Southend-on-Sea.

3.121 In considering local demographic data for the authority, Edge Analytics consider that a number of factors – including the potential under-count of population in the 2001 Census – suggest that the inclusion of UPC serves to over-estimate population growth for Southend-on-Sea to a degree. In the context of level of uncertainty around UPC within Southend-on-Sea in particular, the scale of difference between the longer term 10 year past growth scenario including UPC and the 2012 SNPP projection is not considered sufficient to justify using an alternative population projection than the 2012 SNPP for the HMA as the demographic starting point.

3.122 Following the consideration of a range of variant sensitivity scenarios relating to the demographic evidence, it is concluded that the 2012 SNPP represents an appropriate starting point for considering population growth and therefore demographic based need for TGSE.

3.123 The analysis has considered the implications of the variant scenarios and the historic demographic context of each authority. This serves to confirm that the 2012 SNPP represents an appropriate starting point for each authority, although in a number of cases the local data also suggests reference and consideration should be given to the implied need based on a number of other scenarios in the context of considering other future drivers of need. A summary of the evidence considered for each authority is set out below in this context:

- **Basildon** – the latest demographic data suggests a stronger level of population growth than expected within the 2012 SNPP. Whilst the 2012 SNPP represents an appropriate starting point projection of demographic need, the analysis of demographic needs should therefore also include consideration of the projected higher level of need under the past growth 5 year trend scenario. The authority also saw an under-estimation of population growth, illustrated by a positive UPC. The scenario including UPC therefore provides the upper end of a range of implied demographic need to be considered alongside other factors driving housing need.

- **Castle Point** – whilst the 2012 SNPP represents a higher level of projected growth than that implied by historical trends, primarily relating to internal migration, the implications of factors such as higher out-migration from London

suggests it represents the most appropriate demographic starting point for the authority.

- **Rochford** – the evidence highlights a distinctive shift in Rochford's migration profile following the recession and its subsequent recovery, with variant levels of residential development a potentially important contributing factor. In the case of Rochford whilst the 2012 SNPP represents an appropriate starting point for assessing demographic needs consideration should also be given to the past growth 10 year trend scenario which implies a slightly higher level of need. Again as with Basildon, the authority saw a modest under-count of its population between the Census years. The 10 year past growth scenario including UPC should therefore be considered as providing an upper end of a range of implied demographic need to be considered alongside other factors driving housing need.

- **Southend-on-Sea** – analysis of past trend scenarios including and excluding UPC shows a significant range of implied need for the authority. Given the uncertainties around UPC and a potential contributing under-count of population in the 2001 Census, the fact that the 2012 SNPP sits within this range reinforces its validity as a demographic starting point for the authority. The potential sensitivity of need to variant migration assumptions is, however, recognised in the analysis.

- **Thurrock** – the 2012 SNPP implies a higher level of growth for the authority than that implied by any of the past growth scenarios considered. Natural change is a key driver of growth in all of the scenarios, but the 2012 SNPP assumes a more substantial impact of migration over the forecast period. The latest ONS population estimates have implied a stronger level of growth than the 2012 SNPP and this coupled with a recognition of comparatively low historic rates of development therefore indicates that lower levels of need as implied by the trend-based projections should not be considered in preference to the official dataset.

3.124   The above analysis has concentrated on understanding underpinning population projections. In accordance with the PPG, it is also important to consider the implications of the historic context on household formation rates. A detailed appraisal of these rates has been considered by Edge Analytics with detailed charts included at Appendix 5. This analysis has indicated that across all of the authorities there is evidence that formation rates of younger households have fallen between 2001 and 2011, with this suggesting a potential impact of constraints relating to the supply of housing.

3.125   For the vast majority of age groups across the authorities, the projected household formation rates do not, however, suggest that rates will continue to fall further for these age groups. Where the projections do suggest a further fall in formation rates, over the projection period this is comparatively marginal, and does not represent a continuation of the scale of reduction between the last two Census years. This indicates that they provide a robust demographic 'starting point' for assessing future needs when considered with the population projections. However, the impact of historic market constraints on household formation rates is considered further in section 5 through a detailed review of market signals. This is taken into account in the identification of the OAN for TGSE in section 7.

3.126   The important impact of potentially higher levels of migration from London has also been considered within the analysis. Edge Analytics has modelled a variant scenario of the 2012 SNPP taking into account the underpinning migration assumptions from the GLA Central scenario. Across TGSE, this implies a higher level of population growth based on higher net migration driven from increased net flows from the London Boroughs.

3.127   The modelling suggests a resultant need for 3,070 dwellings per annum under this scenario than that based upon the starting point demographic projections. This reflects an assumed additional pressure from London on housing needs within TGSE. The implication of this scenario on the overall OAN for the area is therefore considered further in the following section examining the relationship between employment growth and labour force growth and section 7.

4. Likely Change in Job Numbers and Implications for Housing Need

4.1   As set out in section 1, the assessment of demographic projected need is the first step in the process of objectively assessing the need for housing. For the next step, the PPG is clear in expecting local authorities to take employment trends into account when considering housing need, with plan makers required to make an assessment of likely job growth and consider the amount of new housing needed to support this likely job creation.

4.2   The Councils are in the process of commissioning a separate Economic Development Needs Assessment (EDNA) study which will consider in detail the anticipated likely level of future job growth across the area. This will inform the development of respective Local Plans. In the absence of this evidence, this section considers forecast employment change drawing upon two up-to-date forecasts from recognised forecasting houses Experian and Oxford Economics.

4.3   The scale of job growth forecast by both are considered in the context of national rates of forecast growth and levels of historic job growth, in order to assess the extent to which they are considered to represent a reasonable estimate of future employment change. This is not intended to pre-empt the conclusions of the anticipated EDNA, but is required in order to ensure that the OAN takes into consideration the potential impact of supporting a reasonable level of forecast job growth across the area.

4.4   It is recognised that the forecasting of employment growth is less accurate than the forward projection of demographic growth, with the factors influencing change arguably more complex and susceptible to external influences. Whereas core demographic assumptions such as birth and death rates are relatively consistent, the economic performance of an area can be impacted significantly by global influences that are largely unpredictable. This is demonstrated by the recent onset of the recession in the UK. Further uncertainty is recognised in the future behaviour of labour with unpredictable factors again potentially influencing how individuals will work in the future. Whilst some aspects – such as changes to state pension ages – can be timetabled with a level of certainty, other factors associated with lifestyle changes and the application of skills with new employment opportunities are considerably more difficult to accurately forecast.

4.5   Recognising the complexities associated with forecast employment growth and labour-force behaviour, the analysis presented in this section uses the POPGROUP suite of software used in the preceding section to model a range of population and household growth sensitivities. These sensitivities recognise both the uncertainty associated with the forecast change in jobs and labour-force behaviour aspects.

4.6   In order to consider the relationship between employment growth and labour-force change, the focus of this section is on the change in jobs as an indicator of economic performance. It is recognised that the comparative strength of a local economy is also judged in the context of growth in productivity, such as forecast change in gross value added (GVA). A growth in productivity can occur without a comparable growth in

employment, recognising the capacity for added value generated as a result of technological advances, up-skilling and competition for labour. The analysis in this section does not seek to measure these aspects, with the major influencing factor on population change – and by implication housing need – being the direct creation of employment opportunities. It will be important for the wider aspects of economic growth potential to be considered through future economic evidence to be commissioned by the Councils.

4.7   Wider economic strategy and investment plans have been considered as part of the analysis. However, the assembled evidence is comparatively disparate, with no clear evaluation of the potential impact of these aspects on future job growth beyond that considered in the baseline forecasts. Again, this will need to be considered within the future economic evidence to be assembled by the Councils within the forthcoming EDNA. This may highlight that policy and investment could potentially generate additional job growth in the area, beyond that projected in the forecasts considered in the SHMA.

4.8   The analysis presented in this section draws upon an assessment of the relationship between job growth and labour force change, presented within Appendix 3, which includes bespoke modelling outputs from Edge Analytics and Experian.

Past Employment Trends

4.9   In order to consider the likely future job growth potential of an area, it is useful to reflect on the extent to which it has successfully generated new employment opportunities historically. This historic profile is likely to reveal the comparative strength of an area's economy, in the context of the national picture. When considering historic change in employment, it is important to recognise that both national and local economies go through cycles of job growth and job decline. Understanding change over the full spectrum of these cycles is therefore of significant importance.

4.10   In order to understand historic job change in this section, data has been drawn from the East of England Forecasting Model (EEFM), published by Oxford Economics. This includes a historic time-series which stretches back to 1991, compared to a similar dataset from Experian which only presents data from 1997.

4.11   It is considered beneficial to assess historic data on employment growth from one of the forecasting houses, as they draw upon a broad range of different official sources of employment data which cover a variety of time series[50]. These individual datasets create a picture of contrasting employment counts which make direct comparisons challenging. These datasets are combined by the forecasting houses to present a consistent indictor of job growth, which – though not directly relating to these specific datasets – can essentially smooth out discrepancies in the information. These are therefore considered to represent an appropriately robust indicator for the purposes of this SHMA.

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[50] These official datasets include for example, Annual Employment Survey (1991-98), Annual Business Inquiry (1998-2008) and the Business Register and Employment Survey (2008-13)

4.12   The following graph shows historic change in total employment in TGSE over the period from 1991 to 2012[51], highlighting an overall employment growth which is likely to be reflective of the area's historic position within the regional and national economy. While there has been an overall positive growth in employment, it is also evident that there have been periods with more limited growth or indeed decline. This presents a challenge in understanding historic employment trends, given that the selection of different start and endpoints can influence trends to a significant degree. This reflects the complexities of economic cycles.

Figure 4.1:   Historic Employment Growth in TGSE 1991 – 2012
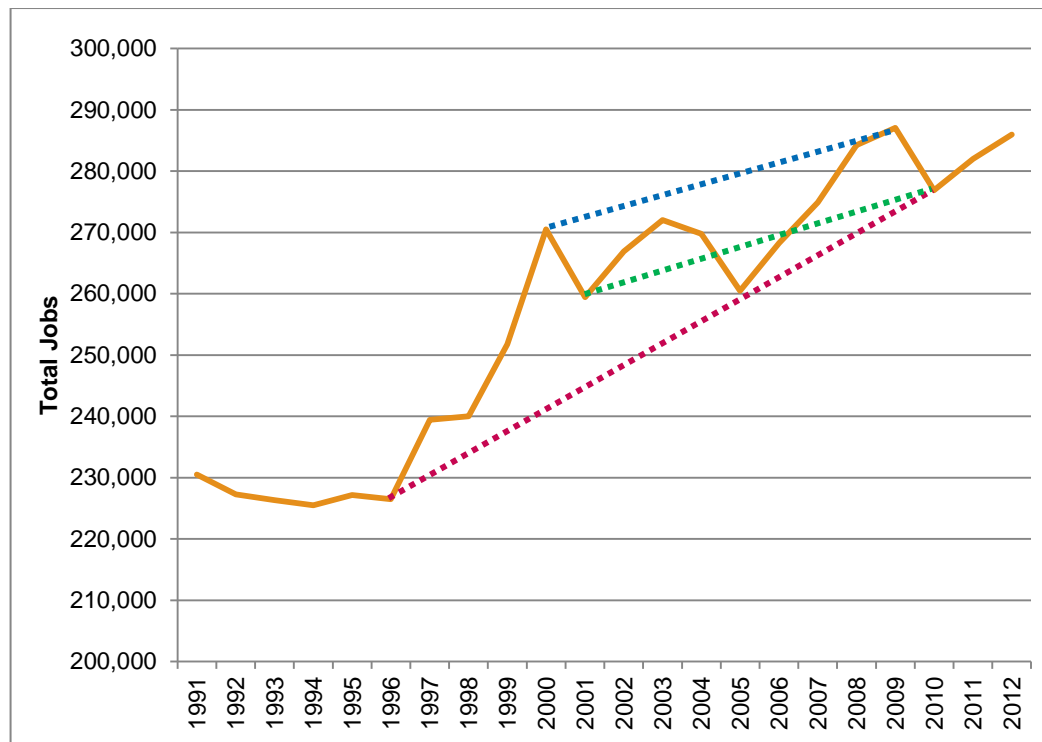
Source: EEFM, 2014

4.13   Over the full period from 1991 to 2012, EEFM suggests that approximately 55,500 net additional jobs were created, with an annual growth of around 2,600 jobs or 1.1% per annum.

4.14   This evidently includes some notable levels of volatility in job growth. The four years between 1996 and 2000, for example, saw job growth of over 44,000 or over 10,000 per year. At an authority level, over half of this job growth was seen in Southend-on-Sea, with comparatively high levels of job growth also seen in Basildon and Thurrock. This level of job growth has not been replicated in any subsequent period in the area, with this then followed by a period in which jobs declined and grew cyclically until the mid-2000s.

4.15   As noted above, it is useful to consider job change within these cycles. Looking at the lowest point of job growth in 1996 to the peak prior to the full impact of the latest

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[51] 2012 is the last year in which historic published data is included within the model at a local level

recession was felt in the area (2010) suggests a strong annual job growth of 1.5% per annum (red line). Arguably, as noted above, this includes a four year period of unprecedented employment growth in the area at the start of this cycle. Taking the next 'low point' of 2001 would – to 2010 – suggest a much lower job growth rate of 0.8% (green line).

4.16   Looking at a 'peak to peak' period of job growth – demonstrated by the period 2000 to 2009 – suggests a comparable level of job growth, with this period suggesting employment growth of 0.7% per annum (blue line).

4.17   Since 2010, it is important to note that the rate of job growth in TGSE (1.6% per annum) has slightly surpassed even the strongest level of job growth recorded between 1996 and 2010, whilst exceeding the more recent 'peak to peak' growth seen in the area. It will be important to monitor the extent to which this rate of growth is sustained.

4.18   Comparing TGSE's employment growth against the national picture is a further useful way of understanding its comparative strength. The following chart indexes job growth from 1991 in TGSE against the UK.

Figure 4.2:   Indexed Employment Growth 1991 – 2012 TGSE and UK
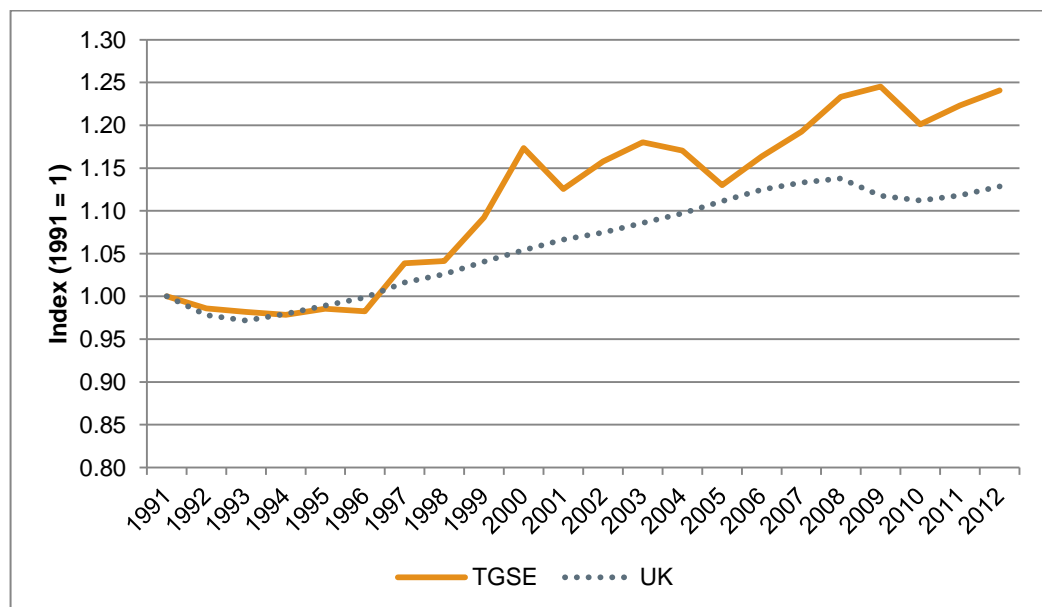
Source: Oxford Economics, 2014

4.19   As noted above, TGSE saw job growth of 1.1% per annum over this period, with this notably stronger than the national picture where growth of 0.6% per annum was achieved on average.

4.20   Looking at the rates of growth over the period, the chart illustrates that up to 1996 the area saw employment change broadly in line with that seen at a UK level. The very strong picture of growth until 2000 in TGSE stands in contrast to a more steady period of sustained growth nationally. However, whilst the economy in TGSE was comparatively volatile up to the mid-2000s, the UK saw a sustained period of growth.

Again, strong growth in TGSE up to 2009 saw the area out-pace national levels of growth.

4.21 Interestingly, TGSE was initially impacted less by the onset of the national recession, with job decline limited only to a single year between 2009 and 2010. Both TGSE and the UK have subsequently seen a comparable level of recovery of jobs up until 2012.

4.22 Overall, it is apparent that TGSE has seen a comparatively strong picture of employment growth historically when compared to the UK. This picture of growth, however – when looking at the longer-term – is heavily influenced by a period of significant growth in the late 1990s. Whilst the area has continued to outperform the UK more recently, the rate of growth has been more moderate at between 0.7% and 0.8% per annum based on peak-to-peak and trough-to-trough market cycles respectively.

Economic Forecasts

4.23 As identified at the start of this section, two forecasts have been sourced from reputable forecasting houses Oxford Economics and Experian to inform the SHMA. Whilst both forecasting houses provide robust estimates of job growth, there are methodological differences between the two, with a summary of the methodology used by each set out below.

Experian

4.24 The Experian econometric forecasts use as their starting point UK-wide economic variables to create a macro-economic forecast, indicating the national demand for labour. The regional forecasts are then constrained to these UK-wide figures with local forecasts constrained to the regional figures.

4.25 In order to develop local authority level forecasts, the Experian model balances its forecast job demand (employment growth) with a projection of labour-force change using the latest ONS population projections (2012 SNPP). Experian apply their own projections of labour-force behaviour change – relating to economic activity rates and unemployment rates – to convert population growth into a potential labour-force. It is stated in Appendix D of Experian's latest Data Guide[52] that *'the participation rate is an endogenous variable in all our models. It is not a fixed assumption'.* In balancing job demand and labour-supply, the Experian model therefore applies adjustments to economic activity rates and/or unemployment to reflect the imbalance.

4.26 Appendix D of the Data Guide also confirms that commuting rates are taken from the 2011 Census within the modelling and fixed at a local level. As with the labour-force assumptions, however, it is noted that these may vary from the ONS derived rate *'because (for example) there is insufficient demand or supply for labour to provide as many workers across a particular commuting relationship'.*

Oxford Economics (OE)

4.27 The EEFM technical report[53] confirms that the EEFM forecasts are consistent with Oxford Economics' world, UK national and UK regional forecasts. The OE model uses a

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[52] Experian (December 2015) Data Guide – UK Regional Planning Service
[53] Oxford Economics (2015) EEFM 2014 Technical Report

methodology which is not markedly different from Experian's in using a national model and then constraining regional and local forecasts in turn.

4.28   OE's model is different with regards to its use of population data, with OE generating its own forecasts of population growth at a national level. Whilst birth and death rates are taken from the ONS projections, migration is driven by OE's own assumptions around the impact of the economy. On this basis, at a local level, migration therefore varies on the basis of the comparative need for labour which is different from the approach taken in the Experian model.

4.29   Again, similar to Experian, OE balances demand for jobs with a labour-force which is derived from the application of participation rates to the population. The model does not present separate economic activity and unemployment rates but groups these collectively into a combined 'employment rate'.

4.30   The EEFM technical report confirms that commuting is a variable factor within the model, which is not forecast but derived based on an area's residence-based and workplace-based estimates of numbers of people in employment. It is asserted that '*our broad assumption is that commuting flows over the forecast period are in line with past trends*'.

Forecast Job Growth

4.31   The following chart compares the forecast change in jobs by Experian[54] and OE[55] across TGSE over the period from 2014 to 2037. Based on the forecasting houses' respective analysis of historic data, forecasts have a different starting point on the number of jobs in the area.

Figure 4.3:   Comparing Experian and OE forecasts 2014 – 2037
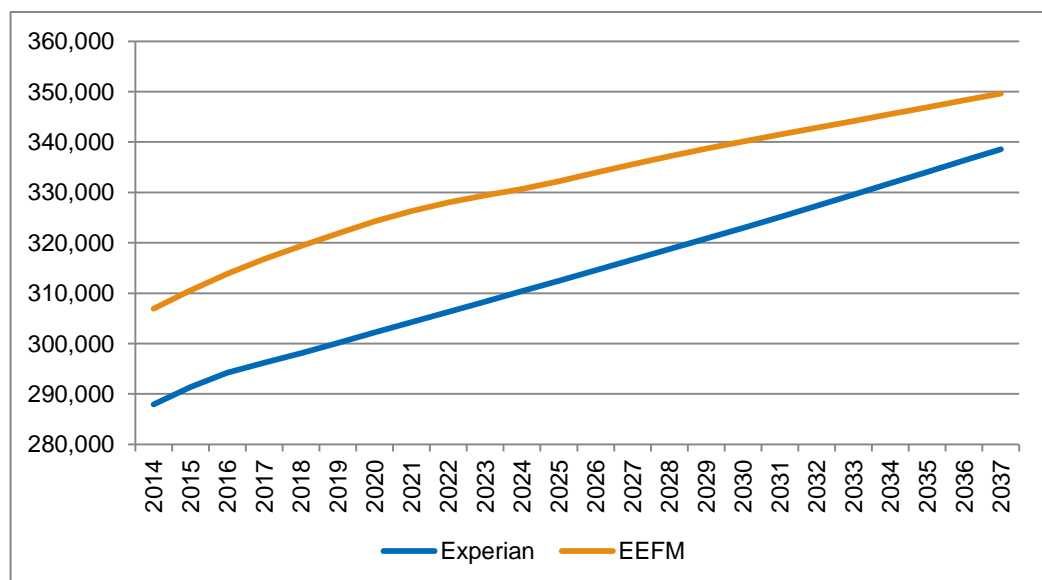
Source: Experian 2015, Oxford Economics 2014

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[54] As Experian forecasts only run to 2035, the 2034/35 level of job creation is assumed to be sustained to the end of the projection period in 2037
[55] Forecasts run only to 2031 and therefore 2030/31 job creation is assumed to be sustained throughout remainder of projection period to 2037

4.32   It is apparent that both forecasting houses project a continued growth in employment in TGSE. The Experian forecast suggests an annual growth rate of 0.7% and the OE forecast forecasts a slightly lower growth rate of 0.6%. This equates to forecast total job growth of 50,662 by Experian – approximately 2,200 on average per annum – and 42,711 by OE, equating to approximately 1,860 jobs per annum.

4.33   The two forecasting houses suggest a comparatively different distribution of forecast job growth between the authorities, with this shown in the following table.

Figure 4.4:   Forecast Job Growth by Authority 2014 – 2037

	Oxford Economics (EEFM)		Experian	
	Total job growth	Annual growth rate	Total job growth	Annual growth rate
Basildon	10,173	0.4%	13,420	0.6%
Castle Point	193	0.0%	2,575	0.4%
Rochford	1,913	0.3%	3,117	0.5%
Southend-on-Sea	7,298	0.4%	14,044	0.8%
Thurrock	23,135	1.2%	17,506	1.0%
TGSE	**42,711**	**0.6%**	**50,662**	**0.7%**

Source: Experian, 2015, Oxford Economics 2014

4.34   Both forecasting houses expect Thurrock to see job growth exceeding the average across TGSE, with this more pronounced in the EEFM model where it is forecast to see double the rate of job growth.

4.35   Basildon is also forecast to see strong job growth under both forecasts, albeit under the Experian model this is closer to the TGSE average. Southend-on-Sea again is also forecast to see comparatively strong job growth under both forecasts, with the Experian forecast suggesting a notably stronger growth. This would see the borough slightly exceed the TGSE average rather than fall below it as it does in the OE model.

4.36   Under the OE model, both Castle Point and Rochford are expected to see very limited job growth, with this particularly true in Castle Point. The Experian model also forecasts a comparatively low level of growth for both authorities, somewhat below the average across the TGSE, but does anticipate a degree of growth in jobs in both.

Economic Strategy and Investment Plans

4.37   It is important to consider economic forecasts in the context of established economic strategies and investment plans, given that this can serve to validate the scale of job growth implied under the baseline forecasts. It is important to note that the application of adjustments to the baseline forecasts to take account of known interventions and commitments falls outside of the scope of the SHMA, although this nevertheless provides important context when interpreting the forecasts.

4.38 The planning and transport strategy for TGSE has been set out by the Partnership[56], with a clear vision to facilitate sustainable employment, economic and housing growth – focused particularly on the key urban centres of Southend-on-Sea, Basildon and Thurrock – while optimising and improving transport networks to attract employment-led development. It is acknowledged that the wider Thames Gateway area has already received considerable investment due to its location and economic importance to the south east, London and the nation. There is, however, further untapped potential within TGSE, and realising this potential will enable the area to catch up with the regeneration achieved across the rest of the Thames Gateway. The strategy cites a number of specific development projects within each authority, summarised below:

- **Basildon** – regeneration of Basildon town centre, with increased retail and office space and a new college campus. A health and education gateway is also being created at Nether Mayne to improve links with local research and development companies;

- **Castle Point** – planned investment in Hadleigh and Canvey town centres, with the legacy from the Hadleigh Olympic event resulting in a new mountain biking facility;

- **Rochford** – London Southend Airport and the surrounding employment area will deliver jobs in both Rochford and Southend-on-Sea, with passenger numbers at the airport planned to rise to 2 million per year;

- **Southend-on-Sea** – alongside job creation associated with the airport, development at Shoeburyness is expected to stimulate growth and support the creation of up to 1,500 jobs. Town centre regeneration in Southend-on-Sea is also expected to provide up to 6,500 new jobs; and

- **Thurrock** – the London Gateway Port is expected to support substantial levels of both direct and indirect employment, alongside the largest logistics park in Europe. The expansion of Tilbury port will also create additional local jobs, with the transformation of Lakeside into a regional town centre and investment and regeneration of Grays and Purfleet town centres also expected to generate additional employment opportunities.

4.39 TGSE is wholly covered by the South East Local Enterprise Partnership (LEP), which is the largest LEP outside of London and was set up to drive economic growth in East Sussex, Essex, Kent, Medway, Southend and Thurrock. The LEP is fully devolved in order to exert a greater local influence, with local delivery partnerships covering Kent and Medway, East Sussex, Essex and TGSE.

4.40 The LEP agreed a Growth Deal with Government in July 2014 – which was expanded in January 2015 – in order to meet the ambitions of the Strategic Economic Plan (SEP) by renewing the '*physical and intellectual capital of the South East*'[57].

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[56] TGSE Partnership (2013) Supporting Growth and Increasing Prosperity – A Planning and Transport Strategy for Thames Gateway South Essex
[57] South East LEP (2015) Growth Deal

4.41   Reflecting the SEP – which highlighted that a lack of investment in transport can increase business costs – there is an initial focus on transport infrastructure, in order to provide the foundation for accelerated growth across the LEP area. The enhancement of transport connectivity represents only one of four key priority areas identified in the SEP, however, with further aims to increase business support and productivity, raise local skills levels and support housing and development.

4.42   The Growth Deal is expected to support the creation of at least 45,000 jobs while allowing 23,000 homes to be built. This goes some way towards meeting the ambitions set out in the SEP[58], which seeks to enable the creation of 200,000 sustainable private sector jobs over the decade to 2021 in the LEP area and increase completions by over 50% to deliver 100,000 new homes by 2021.

4.43   Within the Growth Deal, TGSE is described as a '*national priority area for growth and regeneration*'[59], with the area's excellent port and airport connectivity forming a key strategic gateway for London and the wider UK. Thurrock is described as one of the largest port clusters in the country, with Basildon containing one of the largest business agglomerations in the East of England and London Southend Airport the only expanding airport in the South East. Southend's City Deal was also seen as an innovative measure to drive growth in the TGSE economy, through the delivery of incubator space – to increase rates of entrepreneurship and innovation – and the provision of business support to '*drive jobs growth and [increase] business start-up and survival rates*'. The wider TGSE area is identified as supporting a number of priority sectors which could deliver significant job growth, including advanced manufacturing and engineering; transport and logistics; environmental technologies and energy; and digital, cultural and creative industries.

4.44   The Growth Deal states that building upon existing strengths and taking advantage of unique opportunities could deliver more than 52,000 jobs in TGSE, concentrated along two major growth corridors.

4.45   The A13 corridor – running from Thurrock to Southend-on-Sea, via Canvey Island – is considered the largest single growth opportunity in the South East LEP area. The cornerstone of this is the £1.5bn investment by DP World at London Gateway, which is Europe's largest logistics park with associated port and is anticipated to bring over 12,000 jobs when fully complete. Investment from the Royal Opera House and the National Skills Academy at the High House Production Park in Purfleet has also created a creative and cultural sector focus, with associated live/work space for businesses in the sector and an £800m investment in mixed use redevelopment to create 46,000sqm of employment space, to include media production. Additional investment is planned for a higher education offer with vocational learning space and business incubation units. Thames Enterprise Park provides an opportunity to create a new Enterprise Zone for environmental technology energy sector companies, while a business park is also planned at Canvey Island.

4.46   The A127 corridor is also identified as a growth area, connecting London to Southend via Basildon. Along this corridor – which excludes Thurrock – growth of around 35,000

[58] South East LEP (2014) Growth Deal and Strategic Economic Plan
[59] Ibid (para 4.265)

jobs is planned[60], particularly in industries such as production, manufacturing and distribution. Basildon has a significant concentration of advanced manufacturing companies, while London Southend Airport and its neighbouring business park – which spans the authority areas of both Southend-on-Sea and Rochford – are attracting international companies, with a Joint Area Action Plan[61] (JAAP) funded and adopted to support further expansion. Excluding direct airport related employment, it is estimated that approximately 6,200 additional jobs could be supported in the JAAP area, while a further 1,180 additional jobs are expected to be created within the airport boundary in the period to 2021. Furthermore, a Med Tech campus is currently being developed by Anglia Ruskin University, with Southend also receiving office investment through the City Deal.

4.47   TGSE is also identified as a location for growth within the Essex Growth Strategy[62], with a strategic aim to achieve '*transformational development and change throughout TGSE to significantly improve the local economy*'. Indeed, there has been a longstanding ambition to promote and regenerate the wider Thames Gateway, which – though initially tied to short-term targets – was acknowledged as a long-term initiative which could take a generation or more to achieve[63]. Government support for the Thames Gateway remains, although there is an expectation that future growth will be driven locally and through the South East LEP[64].

A Reasonable Picture of Likely Job Growth

4.48   The analysis of historic job growth has shown that TGSE has been a successful generator of employment opportunities when benchmarked against performance in the UK. Analysis of recent economic cycle growth rates implies an annual historic growth of between 0.7% and 0.8% per annum across TGSE.

4.49   The Experian forecasts suggest a sustained growth at this level, with a 0.7% growth per annum projected. The EEFM forecast, by contrast, suggests a slightly lower annual growth rate of 0.6%.

4.50   In this context, following a review of the EEFM and Experian forecasts and a comparison with historic job growth trends across the area, it is considered that a future job growth of 0.7% per annum in TGSE provides a reasonable basis for understanding likely job growth within the SHMA.

4.51   This level of job growth is higher than the level of annual job growth forecast for the UK by both Oxford Economics (0.4%) and Experian (0.6%).

4.52   Whilst the SHMA has not sought to consider the potential impact of a 'policy-on' approach to job growth – which takes full account of the identified planned investment by the LEP – it is clear that there are strong growth ambitions within the area. This adds

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[60] Essex County Council and Southend-on-Sea Borough Council (2014) A127 Corridor for Growth (note – excludes figures for planned job creation in Brentwood)
[61] Rochford District Council and Southend-on-Sea Borough Council (2014) London Southend Airport and Environs Joint Area Action Plan
[62] Essex County Council (2012) Essex Economic Growth Strategy
[63] DCLG (2006) Thames Gateway Evidence Review
[64] Bob Neill speech to the Thames Gateway Forum, 25 November 2010

further weight to expecting job growth to exceed the national forecast level in the area as a whole.

4.53   As set out earlier in this section, greater weight should be placed on understanding job growth at a functional market level, recognising the strong connections between the TGSE authorities with regards to commuting as shown in section 2. The PPG also confirms that the balance in jobs and labour supply should be considered at a housing market area level[65].

4.54   However, in order to assess the implied housing needs for each of the constituent authorities, it is important to consider the spatial distribution of job growth. As set out above, it is apparent that the EEFM strongly focuses its forecast job growth in Basildon and Thurrock, with Castle Point and Rochford in particular forecast to see very little employment growth. By contrast, the Experian forecast anticipates a more even distribution, which sees job growth in each authority whilst suggesting that the strongest levels of employment growth will be seen in Thurrock, Basildon and Southend-on-Sea.

4.55   In distributing jobs to local authorities, it is recognised that the economic forecasts are subject to even greater uncertainty. However, the distribution under the Experian forecast noted above appears to more closely reflect strategic plans for employment growth and investment, as outlined by the LEP.

4.56   It is acknowledged that Thurrock in particular is identified within the EEFM as having the potential to generate higher levels of job growth, with this also reflecting its historic success at generating jobs. Equally, it is evident that the reverse is the case in Southend-on-Sea in particular, where the Experian forecasts suggest a stronger level of job growth than seen historically. As set out in this section, one of the significant drivers of job growth will be the expansion of London Southend Airport and the provision of new business space in the surrounding area, located on the authority boundary between Southend-on-Sea and Rochford. The extent to which this impacts upon the distribution of associated population growth and housing need between the two authorities will therefore be of significant importance. These issues in particular will need to be considered further as the authorities develop their evidence base in this regard, and the actual distribution of jobs between the authorities should be further assessed given that airport expansion and surrounding employment development could potentially be reflected in the forecasts.

4.57   Annual growth of 0.7% is considered appropriate to take forward and assess the potential implications of this level of growth. The job growth input into the modelling used to inform the housing needs assessment is set out below.

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[65] http://planningguidance.communities.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

Figure 4.5:   Identified Likely Job Growth Levels and Distribution

	2014	2037	Change 2014 – 2037	Annual growth rate
Basildon	93,653	107,074	13,420	0.6%
Castle Point	24,172	26,746	2,575	0.4%
Rochford	27,426	30,543	3,117	0.5%
Southend-on-Sea	74,799	88,843	14,044	0.8%
Thurrock	67,877	85,3833	17,506	1.0%
TGSE	**287,926**	**338,589**	**50,662**	**0.7%**

Source: Turley, Experian, 2015

4.58   The remainder of this section considers the implications of supporting this level of job growth through a changing labour-force. Further modelling of the levels of population growth and housing need associated with the different levels of job growth forecast by each of the forecasting houses are included within Appendix 3. This provides further information and context for the authorities as they seek to translate evidence into Local Plan policy.

Aligning Job Growth and Labour-force Change

4.59   The alignment of projected job growth with future labour-force change requires assumptions to be made around future labour-force behaviour, including for example levels of economic activity within the labour-force, changing levels of unemployment and the flow of labour between different employment locations (commuting).

4.60   As set out earlier in the section, each of the economic forecasts applies its own assumptions regarding the changing size of population associated with resourcing the labour to support forecast job growth. The assumptions underpinning each of the forecasts have been considered and set out within Appendix 3.

4.61   In headline terms, it is apparent that both forecasting houses' models suggest that their forecast levels of job growth can be accommodated by a level of population growth which is in line or lower than the 2012 SNPP. It is equally apparent, however, that the models apply differing assumptions around labour-force behaviour, with some notable variation at a local authority level regarding assumed population growth[66].

4.62   The application of different labour-force assumptions within the integrated economic forecasting models makes it difficult to draw direct comparisons and assess the sensitivity of the forecasts to variation in important future labour-force behaviours.

4.63   Following the analysis earlier in the section, the Experian forecasts are considered to show a level of job growth which is considered reasonable (0.7% per annum). In order to consider the Experian forecasts for TGSE in greater detail, Experian were

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[66] Table 3.4 in Appendix 3 sets out the assumed population growth under each of the forecasting houses noting that levels of growth have had to be extrapolated forward over the period to 2037

commissioned to prepare a series of bespoke employment forecasts. These variant iterations of the projections considered the sensitivities of the forecast levels of job growth in the June 2015 iteration to population inputs in particular. Two variant projections were developed by Experian to this end:

- A **jobs demand** scenario, which applied no population constraints to employment growth i.e. just presented the job growth figure as per the projected 'jobs demand' by Experian and therefore represented an unconstrained forecast of economic growth potential; and

- A scenario which considered how a higher level of population growth – linked to the **SNPP London** scenario – could impact upon future economic growth in each authority.

4.64 These forecasts are presented and analysed in Appendix 3. The jobs-demand iteration of the Experian model highlighted that input population projections were not in headline terms representing any significant constraint to potential forecast job growth within TGSE and are therefore a robust basis from which to understand employment demand.

4.65 Equally, the additional modelling by Experian in which a higher level of input population was included indicated that increasing the population – in line with the SNPP London scenario – would only generate marginal increases in workforce jobs for each authority, due to the additional demand generated for services. This again reinforces the robustness of the forecast as a strong indicator of jobs based demand but also suggests that the Experian model is relatively insensitive to different population growth assumptions. In order to consider the relationship between jobs and labour-force change further, Edge Analytics have used the POPGROUP model to enable a transparent understanding of these issues and to enable direct comparison with the demographic projections of need considered in section 3.

4.66 Section 3 presented a number of demographic projections of growth, with the 2012 SNPP identified as a reasonable starting point across TGSE for understanding future population growth. Recognising the important linkages with London, an important demographic adjustment is applied in the SNPP London scenario, which assumes an increased migration flow from Greater London to reflect the GLA SHMA evidence.

4.67 In the context of the PPG, it is important to appraise the extent to which these demographic projections are likely to be able to support a job growth of 0.7% per annum across TGSE, as identified above.

4.68 In order to convert the projected change into a labour-force, there is a requirement to apply a number of behaviour assumptions within the POPGROUP model. This primarily relates to economic activity rates, unemployment and commuting, as set out below:

- **Unemployment** – recognising that a continuation of comparatively strong growth will be likely to enable continued improvements in returning people to employment, the modelling assumes for each authority that unemployment levels will reduce from their current level to an average based on the pre-recession period (2004 – 07) by 2020. After 2020, the rates are held constant within the model;

- **Economic Activity Rates** – the PAS guidance on OAN[67] identifies that *'a number of housing assessments have been criticised by Inspectors for expecting very fast increases in economic activity rates* [suggesting that] *unrealistic figures put the emerging plan at risk'*. In recognition of this potential issue, the modelling presents two variant outputs based on the application of different economic activity rates. The first set of scenarios holds economic activity rates for those aged up to 60 constant and then applies adjustments for those aged 60 – 69 to primarily reflect changes to state pension age changes. The second set of scenarios again holds economic activity rates for those aged up to 60 constant, but applies a greater adjustment to older cohorts to reflect the Office for Budget Responsibility's (OBR) forecasts for changing activity rates of these age groups. Collectively, these are considered to be sufficiently reasonable and prudent; and

- **Commuting** – the PAS guidance also highlights the risks associated with modelling assumptions where it is assumed that commuters are recalled by changing the existing ratio between authorities, noting that this requires '*cross-boundary agreement in line with the Duty to Co-operate*'. On this basis, the modelling assumes that commuting ratios evidenced by the 2011 Census are fixed over the projection period.

4.69   In comparing the implied levels of job growth able to be supported by the demographic scenarios modelled in POPGROUP with forecast job growth, it is important to recognise that the total job outputs presented above from the two forecasting houses represent counts of total jobs. In reality, this is slightly different from the number of people in the labour-force, as a proportion of people undertake more than one job. Both of the forecasting houses apply their own assumptions regarding the changing proportion of people involved in so called 'double-jobbing', with both implying within their forecasts that this will increase. The forecasts therefore also include a people-based employment count, which is lower than the total job forecast. It is therefore arguably more appropriate to compare this figure with the job outputs generated within the POPGROUP model. In order to support the 0.7% growth rate in jobs forecast under the Experian model, the workplace people count from the model is also used to compare against the POPGROUP outputs.

4.70   The following table firstly compares the levels of job growth projected to be able to be supported under the 2012 SNPP scenario across TGSE. Each of the authorities' modelled outputs are also presented.

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[67] Planning Advisory Service (2015) Objectively Assessed Need and Housing Targets Technical Advice Note – second edition

Figure 4.6:   2012 SNPP Scenario – Modelled Supported Job Growth 2014 – 2037

	State Pension Age adjustments	OBR Older Person Rates	0.7% job growth (Experian workplace based)
Basildon	7,588	9,978	10,874
Castle Point	167	1,020	1,601
Rochford	461	1,366	2,141
Southend-on-Sea	7,711	10,123	12,962
Thurrock	12,888	14,700	15,558
TGSE	**28,815**	**37,187**	**43,136**

Source: Edge Analytics, 2015

4.71   On the basis of the modelling assumptions applied to the demographic projections in POPGROUP, it is evident that the level of job growth identified as being supported falls short of the 0.7% job growth scenario. Where the economic activity rates are adjusted to account only for state pension age changes, the projections suggest that just under 29,000 jobs could be supported, representing around 1,250 additional jobs per annum. Evidently, the assumption that a greater proportion of older cohorts remain in the labour-force – illustrated through the application of the OBR rates – suggests a higher level of job growth can be supported at just over 37,000 jobs, or approximately 1,620 jobs per annum.

4.72   The sensitivity of the modelling to the economic participation of older age cohorts is clearly significant, with this reflecting the ageing of the population assumed within the demographic scenario presented. The following graph shows how the age profile of each authority in TGSE could change over the projection period under the 2012 SNPP. This evidently shows that the greatest increases are in those of retirement age or older.

Figure 4.7: Modelled Change in Age Structure – 2012 SNPP
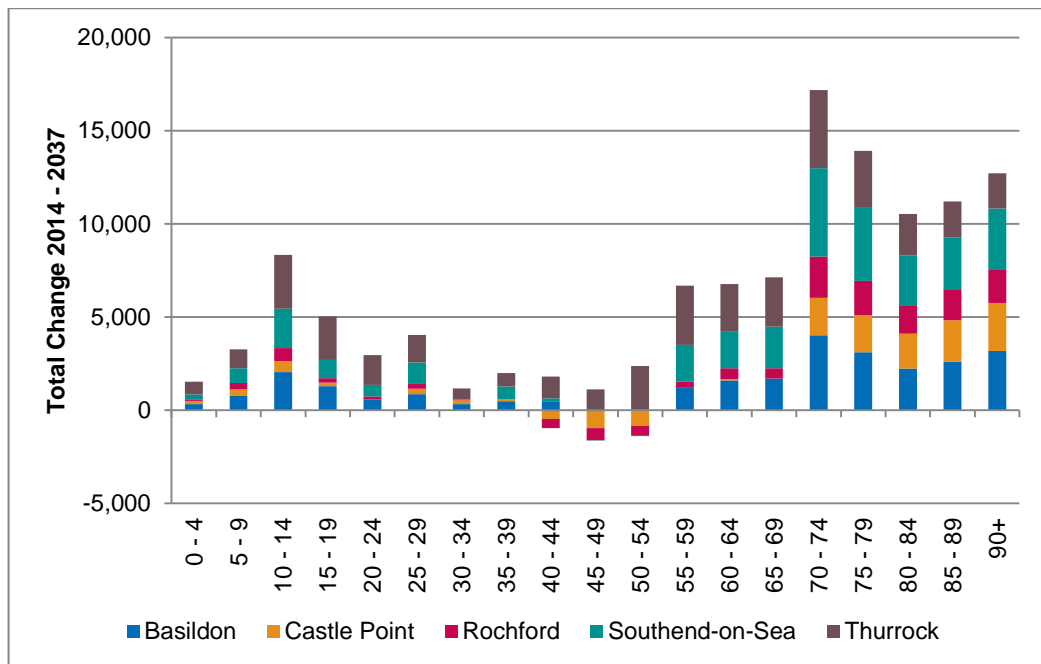
Source: ONS, 2014

4.73 The scale of job growth supported by the higher level of population growth implied under the adjusted demographic scenario – retaining a greater number of people who would otherwise move to London, and including a greater flow of people out from London – is shown in the following table.

Figure 4.8: SNPP London Scenario – Modelled Supported Job Growth 2014 – 2037

	State Pension Age adjustments	OBR Older Person Rates	0.7% job growth (Experian workplace based)
Basildon	8,904	11,327	10,874
Castle Point	409	1,247	1,601
Rochford	620	1,519	2,141
Southend-on-Sea	8,863	11,328	12,962
Thurrock	14,392	16,241	15,558
TGSE	**33,188**	**41,662**	**43,136**

Source: Edge Analytics, 2015

4.74 Under this scenario, the greater growth in population enables a higher level of job growth to be supported. Indeed, where the OBR activity rates are applied, the level of job growth supported across TGSE is broadly comparable to that required to support 0.7% job growth based on the people-based count across the HMA. There is some

variation at local authority level, with Basildon and Thurrock potentially identified as having a surplus of labour under this scenario. Recognising the importance of balancing labour and job growth at a housing market area level, this surplus would be likely to largely offset the under-provision in the other three authorities.

4.75   The application of adjustments to economic activity rates to solely take account of state pension ages, however, would suggest a greater level of difference between the number of jobs able to be supported by the labour-force under this scenario. This would imply some level of additional migration of working age persons in order to ensure that the 0.7% annual growth was supported across TGSE.

4.76   Analysis has been undertaken comparing the labour-force assumptions within the forecasting models with those used in the POPGROUP model to assess likely levels of job growth to be supported under the demographic modelling. It is noted that there are a number of areas of potential difference, particularly around economic activity rates, given that the forecasting models suggest relatively significant increases in activity rates across the population and including the older age cohorts. It is also noted that the forecasts assume changes to commuting rates, which in a number of cases appear relatively significant. In order to compare these directly with the POPGROUP assumptions, scenarios were run seeking to integrate the labour-force assumptions from the forecasting houses into the POPGROUP model in order to illustrate the implications of different adjustments.

4.77   When considering the job growth numbers in Figures 4.6 and 4.8, it is evident that moving from total jobs to a people-based count of job growth highlights that the Experian forecast – which underpins the 0.7% annual job growth considered likely – assumes a notable increase in the number of people undertaking more than one job. Whilst this position could occur, as with the other labour-force behaviour assumptions, there is a level of uncertainty as to the extent to which this will be realised. This is particularly important given the long timeframes within the projections, and the extent to which such an occurrence would diverge from an historic trend.

4.78   In this context, the following scenarios were run integrating the job growth assumptions underpinning the 0.7% job growth rate identified as reasonable in this section[68]. All of these scenarios do not assume any change to the commuting ratio, and assume the same adjustment to unemployment as used in the demographic scenarios:

- **Experian Jobs** – total workforce job growth forecast is aligned to the labour-force, with this not assuming a one to one relationship between job growth and labour-force growth over the projection period. This therefore assumes no allowance for additional people undertaking more than one job. Economic activity rates are assumed to only be adjusted for older age groups to reflect changes to state pension ages;

- **Experian People** – economic activity rates are only adjusted to reflect state pension ages, as per the previous scenario. However, the scenario aligns labour-force change with the people based job count, thereby taking account of the forecast's assumption around increased amounts of double-jobbing;

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[68] This uses the Experian forecast annual job growth levels on an annual basis for each authority

- **Experian Jobs OBR** – as with the first scenario, no allowance is made for double-jobbing, but economic activity rates of older cohorts are adjusted to align with the OBR forecast for activity rates; and

- **Experian People OBR** – this scenario includes the forecast's assumption around double-jobbing, and an adjustment to economic activity rates to align with the OBR forecasts.

4.79 The full outputs of these modelling scenarios are presented within Appendix 3. The following chart illustrates the implied resultant need for new dwellings modelled for each scenario. The SNPP London scenario is presented for context to illustrate the differences between the forecasts with the demographic projection.

Figure 4.9: Variant Projections Aligned to 0.7% Job Growth (Experian forecast)
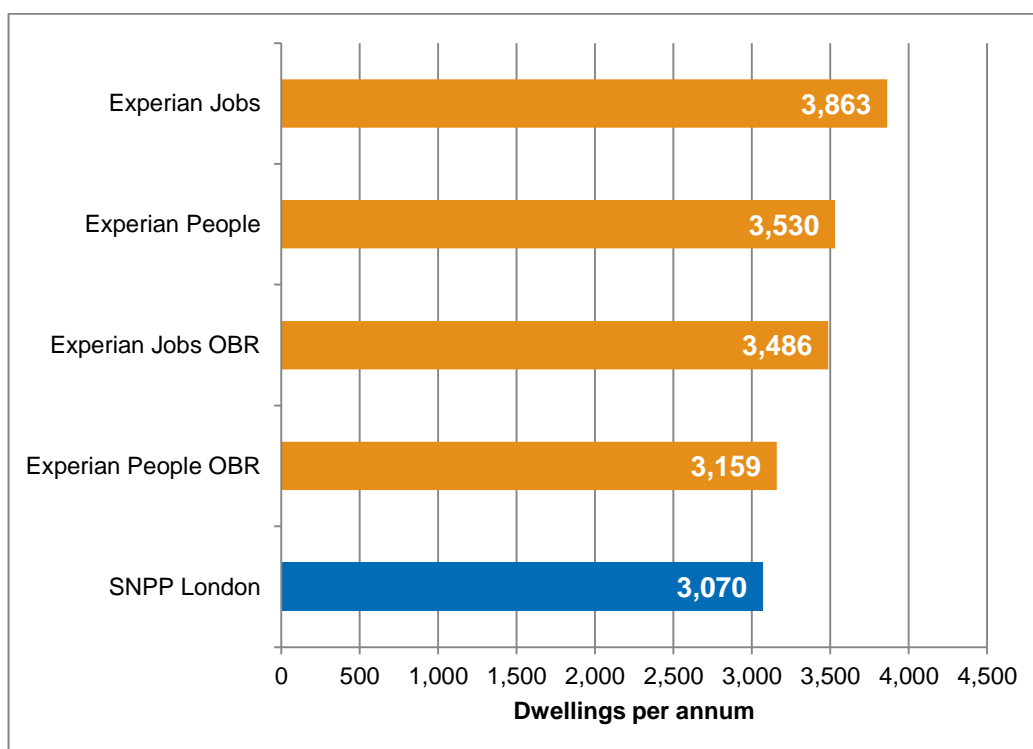
Source: Edge Analytics, 2015

4.80 At the lower end it is clear that the Experian People OBR scenario shows a strong alignment with the SNPP London scenario. This is to be expected, noting – as shown in Figure 4.7 – that the demographic scenario indicated that the modelled growth in jobs would almost support the people-based job count included within the Experian forecast, if greater participation amongst older cohorts is assumed as anticipated by OBR.

4.81 At the upper end, the highest level of housing need is generated by the Experian Jobs scenario. This scenario supports the 0.7% job growth but makes no allowance for double-jobbing over the projection period. This also assumes that economic activity rates of older cohorts only change in response to state pension age changes. In the context of the assumptions made within the two economic forecasting houses' models, this is considered to represent a notably cautious outlook on labour-force behaviour which – in the context of the ageing population profile of both TGSE and the wider

country, and the scale of job growth envisaged along with the forecasting houses own views of labour-force behaviour – is not considered reasonable to take forward as being representative of likely future labour-force behaviour.

4.82   The other two scenarios – the Experian People and Experian Jobs OBR – show a similar level of implied dwelling need. This broadly suggests that the assumptions relating to double jobbing, with the former using the economic forecasts assumptions, and the differing economic activity rate adjustments essentially serve to cancel one another out.

4.83   It is recognised that there is a high degree of uncertainty associated with forecasting labour-force behaviour, noting that the economic forecasting houses themselves apply different assumptions which differ from national forecasts, such as those generated by the OBR. In the context of the range of scenarios generated noting their comparatively considered reasonable to consider the implied uplift in housing need associated with these two scenarios as a potential upper limit required to support job growth of 0.7% across the TGSE area.

4.84   In order to limit the number of scenarios used to derive the OAN, the Experian People scenario is used to represent this upper end of the range. Under this scenario, all of the authorities are implied to require a moderate uplift in the scale of housing need. As set out above, this is considered to represent a potential upper limit of need. It is recognised that the South Essex authorities will be undertaking a study following the publication of the SHMA to consider economic growth potential across TGSE. This will serve to test and validate the scale of employment growth projected in the area and the extent to which this will impact on labour-force behaviour. This will form an important context for appraising the appropriateness of this upper end of the range of housing need, shown in Figure 4.10 for each authority and TGSE as a whole.

Figure 4.10: Experian Workplace-based Employment Scenario

	Change 2014 – 2037				Average per year	
	Population	%	Households	%	Net migration	Dwellings
Basildon	33,783	18.7%	17,938	23.7%	601	794
Castle Point	15,249	17.2%	8,413	22.7%	890	378
Rochford	15,914	18.8%	8,108	23.6%	684	362
Southend-on-Sea	41,688	23.4%	23,380	30.4%	1,296	1,070
Thurrock	43,353	26.6%	20,804	32.2%	632	927
TGSE	**149,987**	**21.6%**	**78,643**	**27.3%**	**4,102**	**3,530**

Source: Edge Analytics, 2015

4.85   The modelling of the relationship between job growth and labour-force change independently within POPGROUP enables a clear transparency as to the labour-force assumptions applied within the model. This is important, given that the forecasting

models update and vary their underpinning assumptions. It also highlights the role of migration – of the working age population in particular – in supporting the identified likely level of employment growth of 0.7% job growth per annum across TGSE, noting that the economic forecasting houses apply different methodologies in this regard.

4.86 The following graph shows the average annual net migration to TGSE under each of the scenarios considered within this section. This is compared to historic levels of migration to the area to establish how the levels of migration required to grow the labour-force under each scenario compare with recent trends. An historic trend line is overlaid to illustrate the historic average net migration of 2,555 people to TGSE annually, which also relatively closely aligns with the pre-recession average of 2,689 per annum seen between 2001 and 2008.

Figure 4.11: Historic and Projected Net Annual Migration to TGSE
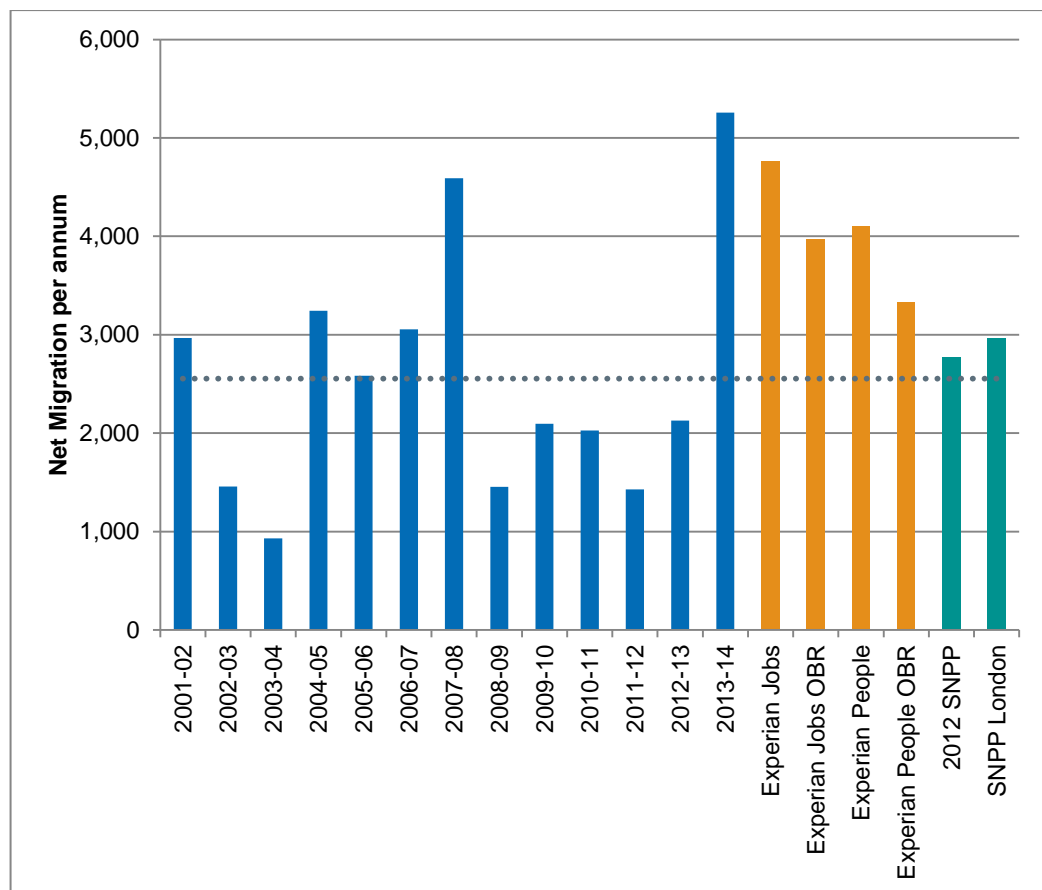
Source: Edge Analytics, 2015

4.87 It is evident that all of the scenarios assume an annual average level of net migration which exceeds the long-term historic average. The two demographic scenarios and the lower-end of the economic derived projections more closely align with the pre-recession average level of migration. This period was associated with a comparatively strong level of employment growth (Figure 4.1) and highlights the potential importance of migration to the area in supporting future employment growth, with this even more important when recognising the ageing of its population.

4.88   At the upper end, the Experian Jobs scenario implies a level of migration closer to 5,000 persons per annum. Whilst this level of migration has been exceeded in the most recent year, as noted above the underpinning labour-force assumptions are considered in combination to be overly cautious in the context of the forecast assumptions. It is also evident that maintaining this average level of migration over the plan period would represent a notable increase from historical levels. The Experian People scenario – which has been recommended as forming an upper limit to a range of adjusted housing need – suggests average net migration close to 4,000 persons per annum. This is evidently notably lower than the level recorded in the last available historic year, and is lower than the previous peak achieved pre-recession.

4.89   Whilst this represents a comparatively strong level of assumed migration to be sustained over the projection period, this can be viewed as reasonable in the context of the aspirations of TGSE to continue to grow, while recognising its important relationship with London and its future growth and resulting demographic pressures.

Summary

4.90   The PPG expects the SHMA to take employment trends into account when considering housing needs. This section therefore considers the potential implication of forecast job growth on population growth and therefore housing need.

4.91   It is apparent from a review of historic job growth data that TGSE has successfully generated a strong level of employment growth. Looking at job growth over a period of more than 20 years, TGSE has seen its employment levels grow on average by 1.1% per annum. This exceeds the national rate of job growth over this period which was approximately 0.6% per annum. Recognising that this job growth was significantly impacted by a very strong level of job growth over a short period in the late 1990s – now over ten years ago – it is considered appropriate to look at the scale of job growth observed over the latest full period in which the economy has seen a full business cycle between growth and decline. Looking at these cycles from both a peak-to-peak and a trough-to-trough perspective suggests that TGSE has seen job growth of between 0.7% and 0.8% per annum. Again, this compares favourably with the long term performance of the national economy.

4.92   The analysis has considered two employment forecasts from reputable forecasting houses, both of which apply slightly different methodologies to generate forecast levels of job growth. These forecasts both suggest that the economy of TGSE will continue to generate new employment opportunities, forecasting average job growth of 0.6% and 0.7% per annum.

4.93   It is apparent from a review of recent strategic economic plans produced by the TGSE Partnership, the South East LEP and Essex County Council that there are a number of significant economic projects and programmes which are anticipated to be delivered in TGSE, which will generate jobs within the projection period. It is equally important to recognise that the historic periods considered above have included economic investment in the area from both the public and private sector. The SEP itself identifies an aspiration to create over 50,000 jobs in the area. Assuming this level of job growth

was to be achieved by 2037 would suggest job growth of in the region of 0.7% per annum.

4.94   Taking account of this analysis collectively, it is considered reasonable to view 0.7% annual job growth in TGSE as a likely level of job growth over the projection period, for the purposes of the SHMA. It is understood that the South Essex authorities are in the process of commissioning an Economic Development Needs Assessment (EDNA) which will consider in detail the economic job growth anticipated in the area and the relationship between job growth and labour-force behaviour. This will provide important context for appraising the analysis in the SHMA presented in this section.

4.95   Edge Analytics has used the POPGROUP model to appraise the extent to which the projected growth in population under the 2012 SNPP – identified in section 3 as an appropriate starting point for considering demographic needs – and the SNPP London scenario which takes account of likely changing relationships with London would be able to support job growth of 0.7% per annum as indicated in the Experian forecast. The modelling uses a number of labour-force assumptions which are considered reasonable. These assumptions include no adjustments to rates of commuting, an improvement in unemployment rates and a range of adjustments to economic activity rates to recognise the impact of an ageing population in TGSE.

4.96   Based on these labour-force assumptions, this modelling suggests that the growth in the labour-force implied under the 2012 SNPP would be unlikely to be able to support an annual job growth of 0.7% in TGSE. The higher population growth under the SNPP London scenario results in a much closer alignment between the job growth projected in the POPGROUP model and the forecast growth in people-based jobs within the forecast.

4.97   The analysis has considered in detail the underlying labour-force behaviour assumptions within the economic forecasts, identifying that they show variation as to the application of commuting rates at an authority level as well as modelled increases in economic activity rates of older cohorts in particular. All of these models are considered reasonable and credible, and the analysis has highlighted the uncertainty associated with seeking to model long-term labour-force behaviour.

4.98   In this context – and in order to ensure a level of transparency in the modelling – a series of employment-led scenarios were generated using POPGROUP, with the population change linked to supporting job growth of 0.7% per annum as forecast within the Experian model. These scenarios illustrated the impact of applying variant assumptions around key labour-force variables, including economic activity rates of older cohorts and the proportion of people which are expected to undertake more than one job. Importantly, all of these scenarios assumed that commuting rates would remain constant. At the lower end of these scenarios, this showed a strong alignment with the SNPP London scenario, suggesting that this scenario could broadly support the identified likely level of job growth across TGSE. However, a number of the scenarios indicated that housing need would exceed the level of growth implied by the demographic need, where labour-force adjustments were more moderate. These scenarios are considered to represent an appropriate upper end of a range of housing need, recognising the uncertainties involved in aligning job growth and population

change. Selecting a single scenario at this upper end suggests that the upper end of housing need in this context would be approximately 460 dwellings per annum higher than the upper end of the demographic scenarios.

5. Market Signals

5.1   The PPG includes a clear methodology for assessing market signals to understand the balance between supply and demand. It is stated that:

"The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rent rising faster than the national/local average may well indicate particular market undersupply relative to demand"[69]

5.2   This report therefore follows the guidance in the PPG to establish the balance between supply and demand in the TGSE area, and considers the implications for the objective assessment of need. This follows an overview of the national market context, which summarises trends seen across the national housing market.

National Market Context

5.3   There have been significant and well-documented changes in the housing market over recent years, with the recent economic downturn constraining the operation of the market following a sustained period of growth. There has, however, been an acknowledged recovery in the housing market as the country emerged from recession, fuelled by growing confidence in consumers, lending institutions and developers alike.

5.4   Prior to the recession, the national housing market saw a period of sustained growth, with the mean house price tripling from £73,117 in 1996 to £222,619 in 2007[70]. Growth was relatively uniform across all regions of England, stimulated by a high level of demand and increased mortgage availability, with higher rates of lending.

5.5   Growth in average house prices did, however, exceed comparable rises in incomes, resulting in worsening affordability. This is illustrated in the following chart, which compares gross house prices to earnings for first-time buyers in the UK. From 2001, it is clear that there was a departure from the long-term average ratio between house prices and earnings, suggesting that housing became increasingly unaffordable from this point.

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[69] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

[70] DCLG (2015) Live Table 585: Mean house prices based on Land Registry data, by district, from 1996

Figure 5.1:   First-Time Buyer Gross House Price to Earnings Ratio – UK
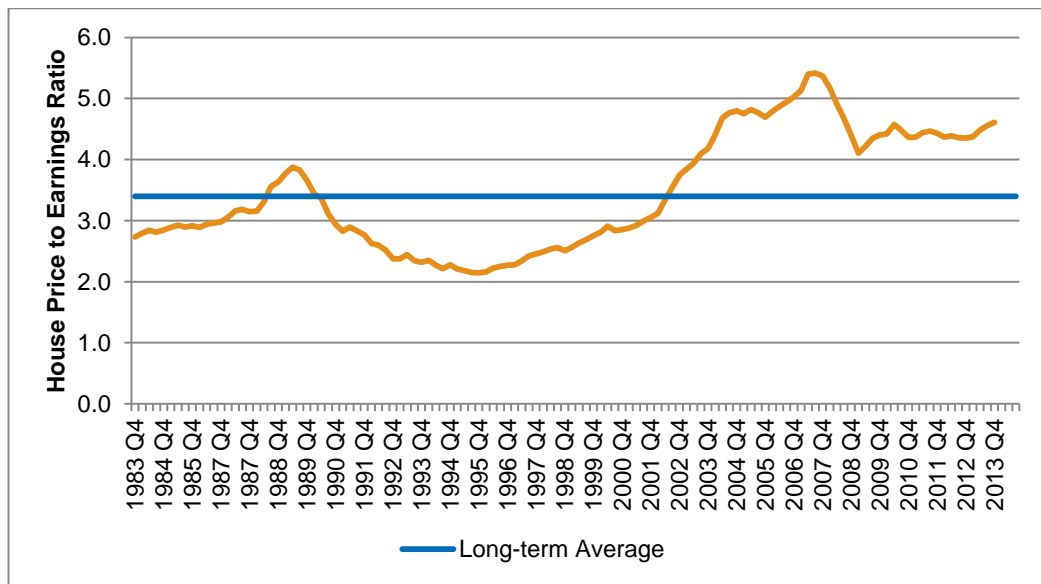
5.6   In 2008, however, the effect of the global economic downturn on the housing market became clear, with reduced confidence in the banking industry leading to a reduction in lending. This led to a protracted period in which households faced difficulty in obtaining a mortgage and accessing housing, reducing the level of effective demand and thereby reducing both the number of transactions and the average house price, with the latter in 2008 seeing a year-on-year fall for the first time in over ten years[71]. Poor market conditions were sustained, with households either reluctant to move or unable to afford the cost of doing so.

5.7   It is widely acknowledged that the housing market has shown signs of recovery, with consumer confidence growing and improved credit conditions supporting higher levels of demand, with a return of first-time buyers[72]. The recovery has had a spatial dynamic, however, with evidence of overheating markets in London and the wider South East in particular. The latest TGSE quarterly market trends report acknowledges that many areas within commuting distance of London are seeing strong house price growth in response to rapid increases in central London, which has led to people looking for property in more affordable areas[73]. This growth has, however, fuelled substantial increases and disparity in house prices, stimulating issues of housing affordability.

5.8   Worsening affordability can often act as a natural brake in the housing market, although notably low mortgage rates over recent years have actually had the opposite effect[74]. The requirement for an initial deposit, however, is becoming an increasingly significant problem – particularly for younger households – and many of these households have increasingly turned to alternative housing products with smaller immediate financial requirements, thereby delaying their buying of a home. The private rented sector in

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[71] DCLG (2015) Live Table 585: Mean house prices based on Land Registry data, by district, from 1996

[72] Savills (2014) Spotlight – What's Next for Residential Development?

[73] TGSE Partnership (2016) Housing Market Trends Quarterly Report – January 2016

[74] PWC (2015) UK Economic Outlook

particular has seen considerable growth over the past decade, establishing a clear role as the default option for people who could neither afford to buy or qualify for social housing[75].

5.9 These trends have been particularly prevalent for younger households[76], who are more than twice as likely to privately rent in 2014 as they were in 2004[77]. Indeed, with the English Housing Survey showing that 48% of people aged 25 to 34 are privately renting, this has become the dominant tenure for this age group, with a clear declining trend in home ownership. This is expected to continue[78], although it is also noted that there are other social and lifestyle factors which have seen demand increase for more flexible housing tenures[79].

5.10 The worsening affordability of home ownership does, however, remain a key driver behind the growth of the private rented sector, and many have attributed the worsening affordability of housing in England to a long-term imbalance between supply and demand[80]. There is a longstanding consensus that the rate of new housing development has failed to historically keep pace with demand[81], with evidence showing that – while there been an average of 200,000 new homes completed annually since 1946 – there has been a clear departure from this trend since the early 1980s, as summarised in the following graph[82]. 118,280 new dwellings were completed in 2014, despite projections expecting approximately 218,500 new households to form during the same year[83].

Figure 5.2: Housing Completions in England 1946 – 2014
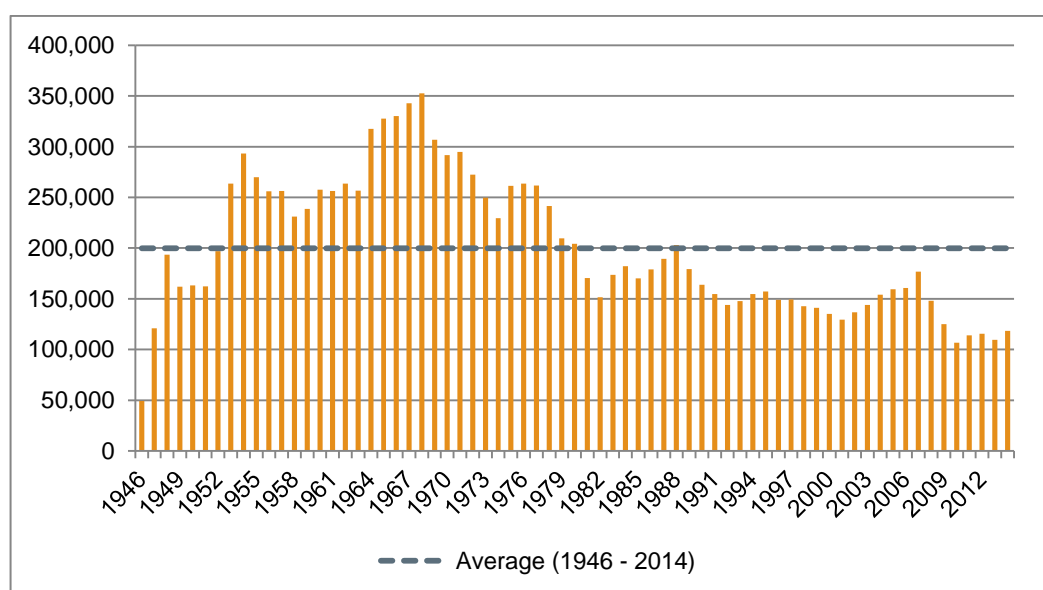
Source: DCLG, 2015

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[75] Ibid

[76] Aged 25 to 34

[77] DCLG (2015) English Housing Survey Headline Report 2013-14

[78] PWC (2015) UK Economic Outlook

[79] House of Commons CLG Committee (2013) The Private Rented Sector – First Report of Session 2013-14

[80] Paul Cheshire (2014) Turning Houses into Gold: the failure of British planning

[81] Kate Barker (2004) Review of Housing Supply

[82] DCLG (2015) Permanent dwellings completed, by tenure and country

[83] DCLG (2015) 2012 Household Projections

5.11   As shown in the following chart, part of this fall has been driven by a decline in public sector house building, with local authorities delivering around 87% of all new housing in England in 1951 but only 1% of new housing in 2014[84]. While housing associations now play a greater role in new housing delivery, this is not to the same scale, and therefore there is a greater reliance upon the private sector to deliver new housing in England. This sector has delivered around 123,000 new homes annually on average over the period shown, and there is therefore a need for further growth in private house building to meet housing needs across the country.

Figure 5.3:   Housing Completions by Tenure in England 1946 – 2014
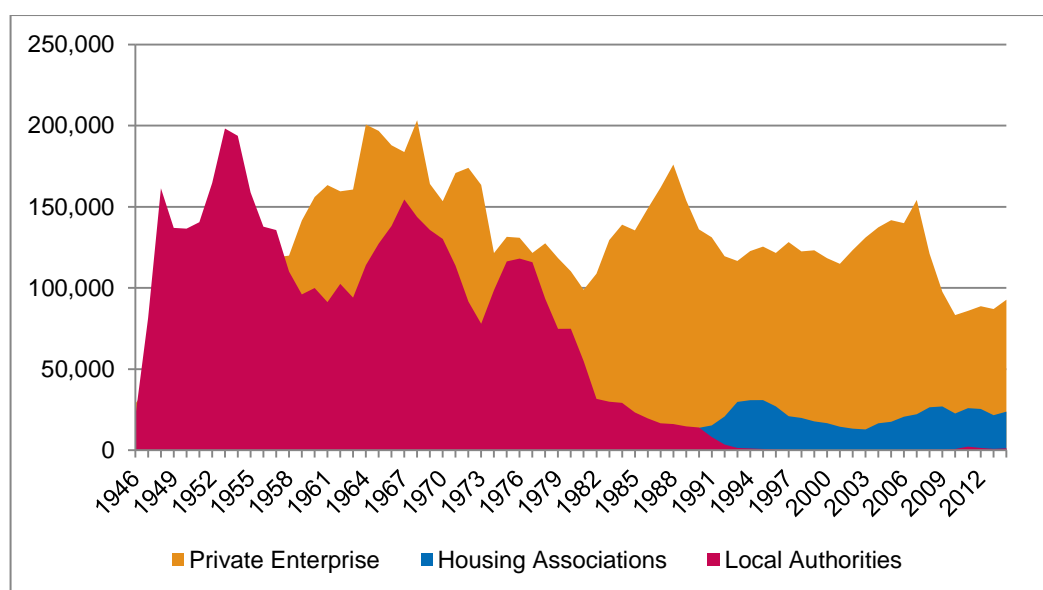
Source: DCLG, 2015

5.12   As noted above, the fall in demand for housing and the availability of credit during the recession were important contributing factors to a fall in new housing development. Private developers have, however, responded to an encouraging economic and market context by increasing delivery following the depths of the recession. More recent figures suggest that the number of planning permissions granted in 2014 is the highest annual figure since 2008, with a clear upward trend and a 12% increase on the previous year[85]. There does, however, remain a shortfall in meeting identified needs – and barriers to developing these permissions – and there are uncertainties regarding the extent to which recent planning reforms can boost housing supply. As such, it is expected that housing supply shortages will persist at a macro level for at least the next decade[86].

Market Signals in TGSE

5.13   Six market signals are identified for review in the PPG:

   •   **House prices** – assessing proportionate levels of inflation as an indicator of long-term imbalances between supply and demand;

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[84] DCLG (2015) Live Table 244 – house building: permanent dwellings completed, by tenure
[85] Home Builders Federation (2015) New Housing Pipeline – Q4 2014
[86] PWC (2015) UK Economic Outlook

- **Rents** – consideration of rental values as an indicator of long-term imbalances between supply and demand;

- **Affordability** – comparing house prices against residents' ability to pay;

- **Rate of development** – assessing the rate at which development has kept pace with planning targets, in order to establish whether a position of backlog or undersupply exists which should be addressed through future provision;

- **Land prices** – identification of price premiums as an indicator of demand for land relative to supply; and

- **Overcrowding** – considering changing levels of overcrowding, concealed and shared households, homelessness and numbers in temporary accommodation, as an indicator of undersupply.

5.14 Each of these factors is considered in turn below, with the TGSE area and its constituent authorities compared to its neighbours and the national profile.

House Prices

5.15 The PPG states that longer term increases in house prices can be indicative of an imbalance between supply and demand. Land Registry data can be used to show how house prices have changed in each of the TGSE authorities over recent years, with average sales values in the calendar year of 2014 compared against values in 2001. The latter is used as a benchmark given that this represents the last point at which the relationship between house prices and earnings was at the long-term average[87].

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[87] See Figure 5.1

Figure 5.4:   Change in Mean House Prices 2001 – 2014

	2001	2014	Change
Southend-on-Sea	**£99,171**	**£231,415**	**133.3%**
England	£121,768	£264,350	117.1%
Chelmsford	£137,767	£288,547	109.4%
Bexley	£127,835	£267,341	109.1%
Basildon	**£115,437**	**£240,471**	**108.3%**
Thurrock	**£97,605**	**£202,961**	**107.9%**
Castle Point	**£115,891**	**£238,562**	**105.8%**
Havering	£138,096	£283,904	105.6%
Maldon	£134,422	£275,284	104.8%
Medway	£94,636	£192,050	102.9%
Dartford	£119,080	£239,321	101.0%
Gravesham	£116,101	£232,810	100.5%
Rochford	**£133,804**	**£262,904**	**96.5%**
Brentwood	£192,419	£375,872	95.3%

Source: Land Registry, 2014

5.16   The evidence suggests that Southend-on-Sea has seen a comparatively notable growth in house prices over the period shown, exceeding the national rate of growth by some margin. The authority has, however, previously been characterised by relatively low values, and the price growth has therefore occurred from a relatively low base and this could be viewed as a move away from this comparative underperformance. House prices in the borough also continue to be lower than neighbouring authorities, such as Rochford and Castle Point.

5.17   Basildon, Castle Point and Thurrock have also seen notable price growth over this period, although it has fallen below the rate seen nationally and the latter in particular has again increased from a comparatively low base in 2001. Nevertheless, growth in these authorities has outpaced that seen in most neighbouring authorities, with the exception of Chelmsford and Bexley.

5.18   Prices in Rochford have not increased to the same extent as elsewhere – with the exception of Brentwood – although the district continues, as of 2014, to have the highest house prices in the TGSE area.

5.19   It is also important to consider how house prices at the lower, more accessible end of the market have changed over recent years. The following table summarises change in lower quartile house prices, which provide a useful indicator of entry-level property in TGSE. This shows a similar trend, with Southend-on-Sea seeing the greatest increase in lower quartile property values. Notably, however, lower quartile house prices have

increased to a greater extent than mean values, suggesting an increased price pressure at the lower end of the market which may be indicative of increased demand relative to supply.

Figure 5.5: Change in Lower Quartile House Prices 2001 – 2014

	2001	2014	Change
Southend-on-Sea	**£59,000**	**£152,000**	**157.6%**
England	£54,000	£133,500	147.2%
Dartford	£75,000	£175,000	133.3%
Thurrock	**£65,000**	**£150,000**	**130.8%**
Basildon	**£68,500**	**£156,000**	**127.7%**
Medway	£62,000	£139,000	124.2%
Castle Point	**£80,000**	**£178,000**	**122.5%**
Maldon	£83,000	£184,000	121.7%
Gravesham	£76,000	£165,000	117.1%
Chelmsford	£89,000	£192,500	116.3%
Bexley	£88,961	£192,250	116.1%
Havering	£95,000	£205,000	115.8%
Rochford	**£94,500**	**£202,500**	**114.3%**
Brentwood	£112,000	£238,500	112.9%

Source: Land Registry, 2014

Rents

5.20   The PPG suggests that the rental market should also be considered as a market signal, with longer term changes in rental levels indicative of a potential imbalance between the demand for and supply of housing.

5.21   This is particularly important to consider given the sizable growth in the private rental sector in the national housing market, such that it has become the dominant tenure for younger people[88]. The Census shows that there has also been a similar shift in tenure trends in TGSE, with the number of households renting from a landlord or letting agency in the area increasing by 95% between 2001 and 2011. This is considered in further detail in section 7.

5.22   In order to understand how the existing supply of private rented stock is meeting this additional demand, data published by the Valuation Office Agency (VOA) – which collates information provided by private landlords – can be used to benchmark average rents in each authority. The latest available data covers the period from April 2014 to

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[88] DCLG (2015) English Housing Survey Headline Report 2013-14

March 2015, with both lower quartile and mean rents presented in the following table. This is sorted by mean rents.

Figure 5.6:   Monthly Private Rental Cost 2014/15

	Mean	Lower Quartile
Brentwood	£1,067	£775
Havering	£958	£775
Bexley	£936	£725
Rochford	**£840**	**£675**
Chelmsford	£838	£675
Basildon	**£833**	**£650**
Dartford	£813	£643
Castle Point	**£803**	**£650**
Thurrock	**£800**	**£650**
Maldon	£768	£620
England	£768	£475
Southend-on-Sea	**£706**	**£550**
Gravesham	£701	£550
Medway	£677	£550

Source: VOA, 2015

5.23   Mean rents in all but one of the TGSE authorities exceed the national average, with Rochford and Basildon in particular characterised by relatively high rents. These remain lower than in neighbouring London Boroughs, however, and are also lower than seen in Brentwood. Lower average values in Southend-on-Sea could reflect the availability of smaller stock in the town, with the market slightly skewed towards smaller properties in response to the area's demographic. The maturity of the market in the area may also lessen the imbalance between supply and demand for rented properties.

5.24   With lower quartile rents in all authorities exceeding the comparable national rent, it could be that there is a particular imbalance at the lower end of the rental market, although again values in Southend-on-Sea are lower than in other TGSE authorities.

5.25   The PPG highlights the importance of understanding change in rents, and the following table therefore summarises how both mean and lower quartile rents have changed in TGSE. This is undertaken by comparing the values presented above with the oldest available published dataset, which covers the year to June 2011. This analysis focuses solely on two bedroom properties, given that change in overall averages – presented in Figure 5.6 – can be skewed by the size of stock in respective samples.

Figure 5.7: Change in Monthly Private Rental Cost (2 beds) 2010/11 – 2014/15

	Mean	Lower Quartile
Dartford	22.2%	18.4%
Bexley	18.7%	13.3%
Havering	15.2%	10.0%
Gravesham	13.1%	13.0%
Chelmsford	10.4%	11.5%
Thurrock	**10.2%**	**11.5%**
Brentwood	9.3%	10.3%
England	8.3%	4.2%
Medway	8.1%	9.1%
Rochford	**7.6%**	**8.1%**
Basildon	**7.4%**	**3.7%**
Maldon	7.2%	8.3%
Southend-on-Sea	**6.9%**	**9.2%**
Castle Point	**4.0%**	**3.8%**

Source: VOA, 2015

5.26 Thurrock is the only authority to see mean rents for two bedroom properties increase at a faster rate than occurred nationally, with the average rent increasing by 10% across England. Whilst this rate of growth is notable, it falls below many of the adjacent authorities which have seen rates of growth as high as 22%. Southend-on-Sea and Castle Point have seen relatively little growth in average rents for property of this size when compared to the other authorities in the HMA and adjacent authorities.

Affordability

5.27 The PPG suggests that an assessment of the relative affordability of housing within an area should be undertaken, through a comparison of housing costs in the context of households' ability to pay.

5.28 The earlier analysis showed that there has been considerable price growth in TGSE over recent years, and the impact of these increases on the affordability of homes in the area can be estimated by taking account of earnings.

5.29 DCLG publish data showing the ratio between lower quartile house prices and lower quartile earnings, and this can be used to understand the affordability of housing at the lower, more accessible end of the market. For clarity, only TGSE authorities and England are presented in this graph, but other authorities are considered further later in this section.

Figure 5.8: **Change in Affordability Ratio 1997 – 2013**
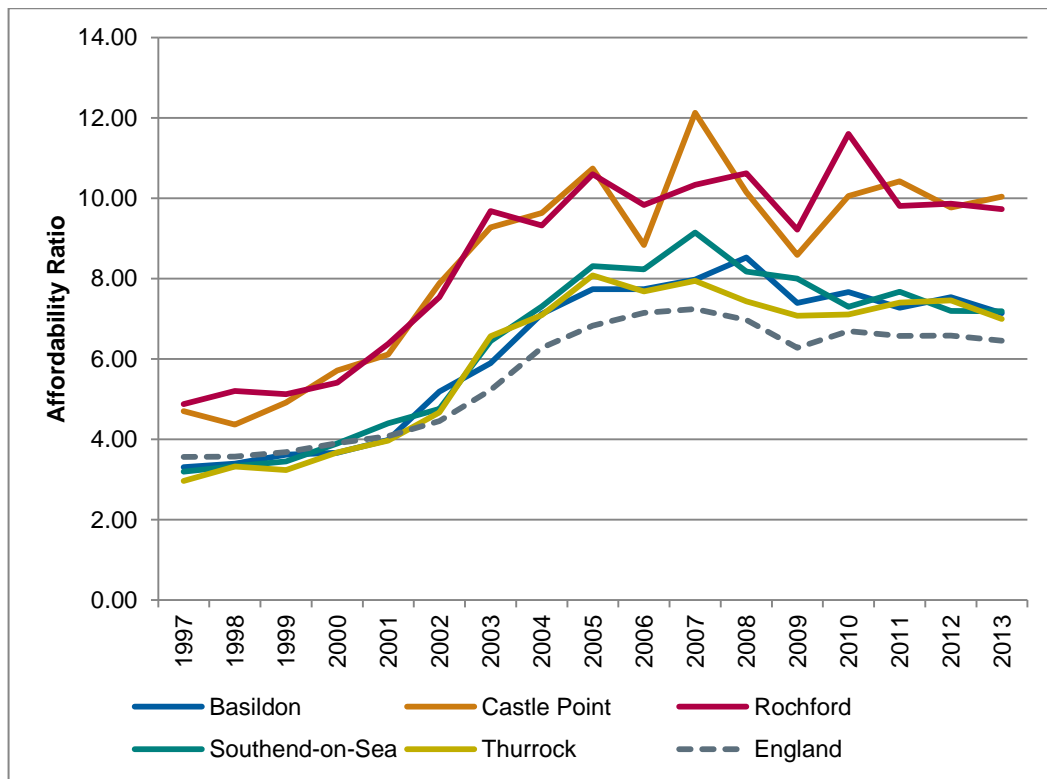
Source: DCLG, 2015

5.30   All authorities have seen a long-term worsening in affordability – following the national trend – although it is notable that Castle Point and Rochford have particularly high affordability ratios. This suggests that people working in these authorities would be required to spend a greater number of years' income on the cost of purchasing a home in the authority where they work. The other TGSE authorities – Basildon, Southend-on-Sea and Thurrock – are all characterised by relatively similar ratios, with an employee in the area required to spend around 7 years' income on the cost of purchasing a home. This remains higher than the national average.

5.31   The scale of increase in the affordability ratio – in contrast to the national picture and a number of neighbouring authorities – is also important to consider, and the following graph shows the proportionate change between 2001 and 2013.

Figure 5.9: Proportionate Change in Affordability Ratio 2001 – 2013
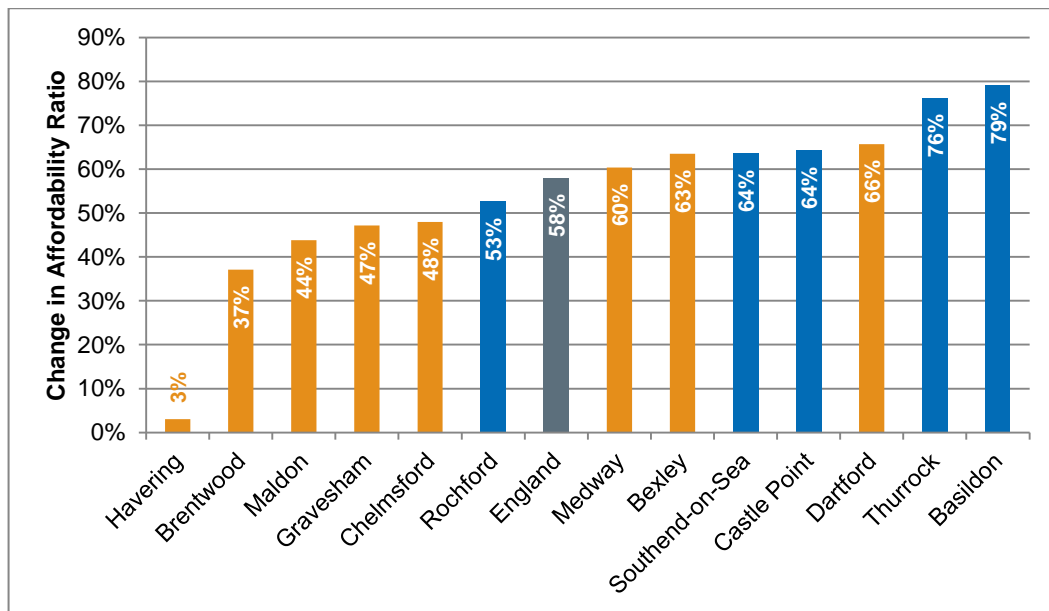
Source: DCLG, 2015

5.32   The growth in the affordability ratio in Thurrock and Basildon in particular is notable, outpacing the growth seen in many neighbouring authorities and England. Indeed, only Rochford has seen a slower increase in the affordability ratio than England as a whole, with all other TGSE authorities exceeding the national rate. This suggests that the earnings of those who work in TGSE authorities have failed to grow in line with house prices in the area.

5.33   As noted earlier, the ratios presented above compare lower quartile house prices with lower quartile earnings, although it is understood that the latter are workplace-based and therefore are based on the earnings received by people working in each authority. This illustrates the number of years' income an individual working in TGSE would need to spend to afford housing in the area, but it does not take account of people living in the area who may have a higher income due to working elsewhere. This is particularly important to consider given that a quarter of residents commute to work in London[89], with the following table showing that incomes in London are notably higher than in TGSE. This draws upon data from the 2014 Annual Survey of Hours and Earnings (ASHE) for consistency with the ratios published by DCLG. This represents a separate dataset to the CACI data utilised in section 6 of this report, which provides a more detailed breakdown of the number of households in different income bands. Lower quartile gross earnings for full-time employees are presented in the following table, given that these are used by DCLG to model affordability.

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[89] Based on 2011 Census commuting data

Figure 5.10: Gross Earnings for Individuals Working in TGSE and England 2014

	Lower Quartile Earnings	Variance Relative to Inner London
Basildon	£18,692	– 31%
Castle Point	£14,913	– 45%
Rochford	£18,397	– 32%
Southend-on-Sea	£18,254	– 33%
Thurrock	£18,467	– 32%
Inner London	**£27,177**	**0%**

Source: ONS, 2014

5.34   This suggests that people working in TGSE – at the lower quartile – earn considerably less than those working in Inner London, with gross earnings around one third lower in TGSE authorities but reaching 45% lower in Castle Point.

5.35   This has important implications for the affordability ratio, given that a household living in TGSE but working in London will have increased spending power due to higher earnings. The difference between earnings for residents and workers are illustrated in the following chart.

Figure 5.11: Lower Quartile Earnings – Residence and Workplace-based 2014

	Residence-based	Workplace-based	% difference
Basildon	£20,699	£18,692	– 10%
Castle Point	£20,034	£14,913	– 26%
Rochford	£20,942	£18,397	– 12%
Southend-on-Sea	£20,786	£18,254	– 12%
Thurrock	£19,735	£18,467	– 6%

Source: ONS, 2014

5.36   Housing in the area may therefore be more affordable for people who work elsewhere than suggested by the DCLG dataset presented above.

5.37   A further exercise to compare residence-based earnings with house prices in TGSE can provide an indication of the number of years' income spent by people living in the area in order to access housing in each authority. This is based on provisional results from the 2014 ASHE, and lower quartile house prices in the calendar year of 2014 drawn from the Land Registry analysis earlier in this section. England is also presented for context.

Figure 5.12: Relationship between Residents' Earnings and House Prices 2014

	Lower quartile house price 2014	Lower quartile earnings[90] 2014	Ratio
Basildon	£156,000	£20,699	7.5
Castle Point	£178,000	£20,034	8.9
Rochford	£202,500	£20,942	9.7
Southend-on-Sea	£152,000	£20,786	7.3
Thurrock	£150,000	£19,735	7.6
England	£133,500	£19,403	6.9

Source: ONS, 2014; Land Registry, 2014; Turley, 2015

5.38   This continues to show similar patterns, with Castle Point and Rochford relatively less affordable than other authorities in TGSE and all authorities less affordable than the national average. This cannot be directly compared with DCLG statistics – which were based on values and earnings in 2013 – and a similar exercise can therefore be undertaken to establish the relationship between workplace-based earnings and lower quartile house prices in 2014. The resultant ratios are summarised in the following graph, alongside the residence-based ratios presented in the table above.

Figure 5.13: Ratio between Earnings and House Prices – Residence and Workplace-Based 2014
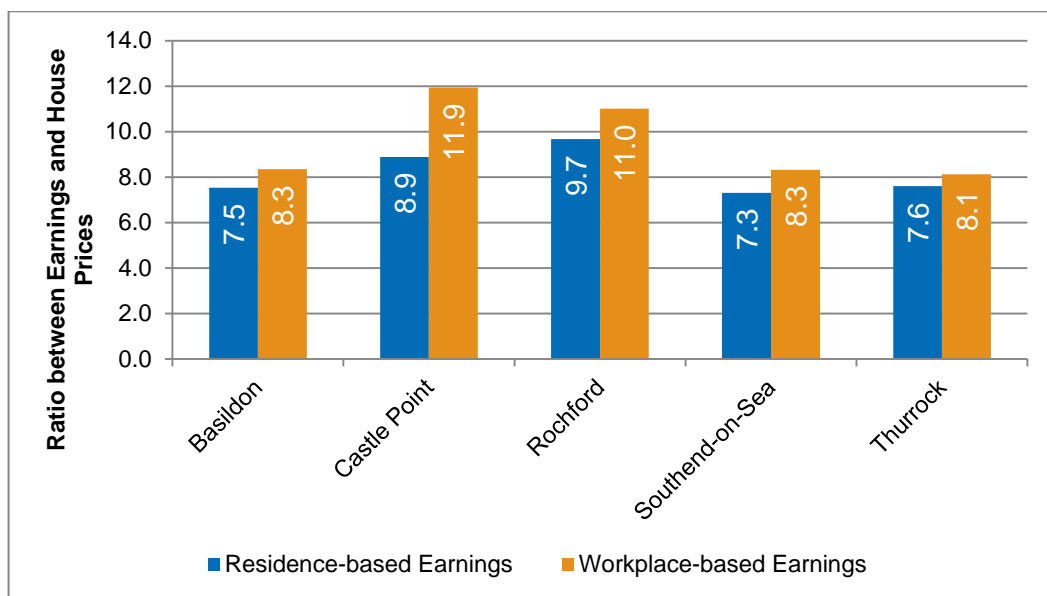
Source: ONS, 2014; Land Registry, 2014; Turley, 2015

5.39   The greatest disparity can be seen in Castle Point, suggesting that a household that current lives in the borough – but does not necessarily also work there – would be

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[90] Residence-based gross earnings for full-time employees – ASHE 2014 provisional results

required to spend a smaller number of years' income on the cost of purchasing a house compared to those who currently work in the area. This reflects the relatively low wage economy in the borough, which contrasts with the earnings of the circa 70% of employed residents who commute elsewhere. This pattern is also true – albeit to a slightly lesser extent – in Rochford.

5.40   Recognising the emphasis on change in the PPG, a final exercise can determine how the relationship between residence-based earnings and house prices has changed since 2002[91]. This is summarised in the following table – based on 2002 ASHE data and lower quartile Land Registry sales in the calendar year of 2002 – and highlights that the relationship between house prices and the earnings of residents has worsened over this time across TGSE.

Figure 5.14: Change in Residence-based Affordability Ratio 2002 – 2014

	2002	2014	Change
Thurrock	4.6	7.6	64%
Basildon	4.8	7.5	56%
Castle Point	5.7	8.9	56%
Southend-on-Sea	4.9	7.3	48%
Rochford	6.6	9.7	46%

Source: ONS, 2014; Land Registry, 2014; Turley, 2015

5.41   In composite, the evidence in this section confirms that the relationship between house prices and earnings at the lower end of the market has worsened over recent years across TGSE, with households required to spend a greater number of years' income on the cost of purchasing an entry-level home. Importantly, this is apparent when considering both the earnings of those who work in the area and those who are residents, but may work elsewhere.

Affordability of the Private Rented Sector

5.42   With an increased number of households living in the private rented sector in TGSE, it is also beneficial to understand the relative affordability of housing of this tenure. Evidence published by ONS[92] compares median monthly private rents with residence-based median gross monthly salary for each local authority in England, and the following chart shows the implied proportion of income spent on rent in TGSE and neighbouring authorities[93]. This indicates that residents of Castle Point spend a greater proportion of their monthly earnings on the cost of private rent, with residents of Southend-on-Sea spending a slightly smaller proportion of their earnings on rent.

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[91] ASHE 2002 was the first to include measure of residence-based earnings, with preceding surveys only based on place of work
[92] ONS (2015) Housing Summary Measures Release (Table 6)
[93] No figure available for Maldon or England and these have therefore been excluded from this analysis

Figure 5.15: Monthly Rent as Proportion of Residence-based Earnings 2014
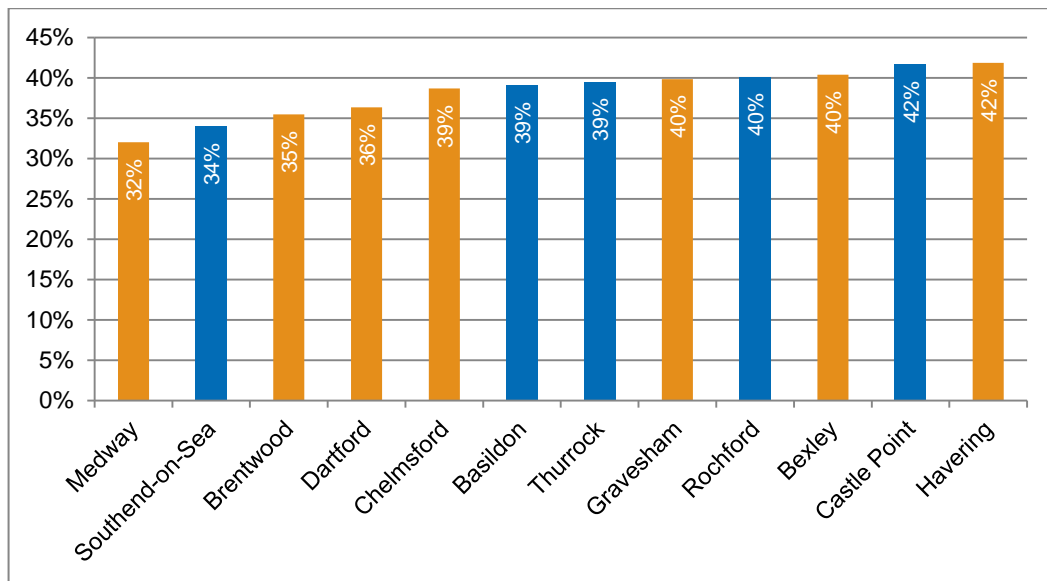
Source: ONS, 2015

Rate of Development

5.43 The PPG suggests that the historic rate of development should be considered as a market signal, in order to establish whether this has met planned levels of supply. Identification of a backlog could justify an increase in future supply to allow for this likely shortfall[94].

5.44 In order to determine how the rate of development has compared to planned supply, it is first necessary to establish the current policy position and housing target in each authority. This is summarised below:

- **Basildon** – the Regional Spatial Strategy (RSS) set a target to deliver a minimum of 535 dwellings per annum in Basildon between 2001 and 2021. Whilst this strategy has now been abolished, this remains the latest housing target against which development rates can be compared;

- **Castle Point** – there is currently no up-to-date plan in which a housing target for Castle Point is set, with the current Local Plan adopted in 1998[95]. The RSS set a target for 200 dwellings per annum between 2001 and 2021, and again this therefore represents the latest housing target in the borough;

- **Rochford** – the Core Strategy[96] was adopted in 2011, with the housing requirement drawn from the RSS. The RSS sought to provide 4,600 dwellings in Rochford over the period from 2001 to 2021, equivalent to 230 per annum. Under-provision of housing between 2001 and 2006 has been taken into account in setting an annual requirement for 250 dwellings per annum from 2006 to 2026;

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[94] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019
[95] Castle Point Borough Council (1998) Local Plan
[96] Rochford District Council (2011) Core Strategy

- **Southend-on-Sea** – the Core Strategy[97] was adopted in 2007, with housing targets derived from the RSS. While an overall target of 6,500 dwellings between 2001 and 2021 was set, the adopted policy sought to phase this over the plan period, with an annual target of 335 dwellings between 2001 and 2011 falling to 320 dwellings per annum over the subsequent five years and 310 dwellings per annum for the remaining five years of the plan to 2021; and

- **Thurrock** – the Core Strategy[98] was adopted in 2011, and was based on a target in the RSS to deliver 925 dwellings per annum between 2001 and 2021. This was rolled forward to 2026 in the Core Strategy, which increased the requirement to 950 dwellings per annum to take account of the unbuilt residual from the RSS target.

5.45   The following table shows the rate of development in each authority since 2001, drawing upon monitoring data provided by the Councils. This is compared against planned targets, which – given that all targets are based on RSS figures – calculates the total housing provision planned in each authority between 2001 and 2014 in the RSS. The table presents completions up to 2014, given that this represents the base date of the modelling undertaken by Edge Analytics.

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[97] Southend-on-Sea Borough Council (2007) Development Planning Document 1 – Core Strategy
[98] Thurrock Council (2011) Core Strategy and Policies for Management of Development

Figure 5.16: Net Completions 2001 – 2014

	Basildon	Castle Point	Rochford[99]	Southend-on-Sea[100]	Thurrock	TGSE	TGSE target
2001/02	221	171	129	350	906	**1,777**	2,225
2002/03	280	173	165	384	957	**1,959**	2,225
2003/04	114	157	197	307	477	**1,252**	2,225
2004/05	135	290	59	481	1,167	**2,132**	2,225
2005/06	473	217	262	610	739	**2,301**	2,225
2006/07	183	115	449	443	413	**1,603**	2,225
2007/08	315	105	169	234	161	**984**	2,225
2008/09	478	114	102	315	130	**1,139**	2,225
2009/10	468	115	86	144	88	**901**	2,225
2010/11	172	110	42	183	288	**795**	2,225
2011/12	700	51	93	328	343	**1,515**	2,210
2012/13	622	75	43	254	311	**1,305**	2,210
2013/14	119	45	248	204	323	**939**	2,210
Total	**4,280**	**1,738**	**2,044**	**4,237**	**6,303**	**18,602**	28,880
Targeted	6,955	2,600	2,990	4,310	12,025	**28,880**	–
Relative to target	-2,675	-862	-946	-73	-5,722	**-10,278**	–
Average pa (2001 – 14)	329	134	157	326	485	**1,431**	2,222

Source: Council monitoring data, 2015

5.46 Overall, while around 1,430 dwellings have been delivered annually on average across TGSE over this period, it is clear that the rate of development has fallen short of planned levels in the RSS, with 10,278 fewer net dwellings delivered relative to planned supply up to 2013. Across TGSE, levels of completions were stronger prior to 2006, with the RSS target only exceeded in one year (2005/06). The scale of undersupply has, however, been more pronounced since 2007/08 with the onset of the recession likely to have been a major factor.

5.47 In geographical terms, this has largely been driven by undersupply in Basildon and particularly Thurrock, with Southend-on-Sea broadly meeting policy targets with a shortfall only generated in the last monitoring year.

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[99] RSS requirement for 230 dwellings per annum from 2001 used for consistency with other authorities presented
[100] Target takes account of planned phasing of development

5.48   In considering completion data, it is also useful to set this in the context of an assessment of the number of additional occupied dwellings. There is often a 'lag time' between properties being built and them being occupied. It is possible to use DCLG datasets to calculate the total change in dwelling stock year on year and allow for the identified number of vacancies to arrive at a proxy count of additional occupied properties each year. The number of occupied properties is an important complementary indicator as to the demand for housing in an area and assists in appreciating how the supply of homes has been linked to the changing demographic profile of an area.

5.49   Figure 5.17 compares the numbers of additional occupied properties each year against the recorded number of net completions. Due to the availability of data, the analysis presents a ten year period running from 2004/05 to 2013/14.

Figure 5.17: Change in Occupied Dwellings compared with Net Completions 2004/05 – 2013/14
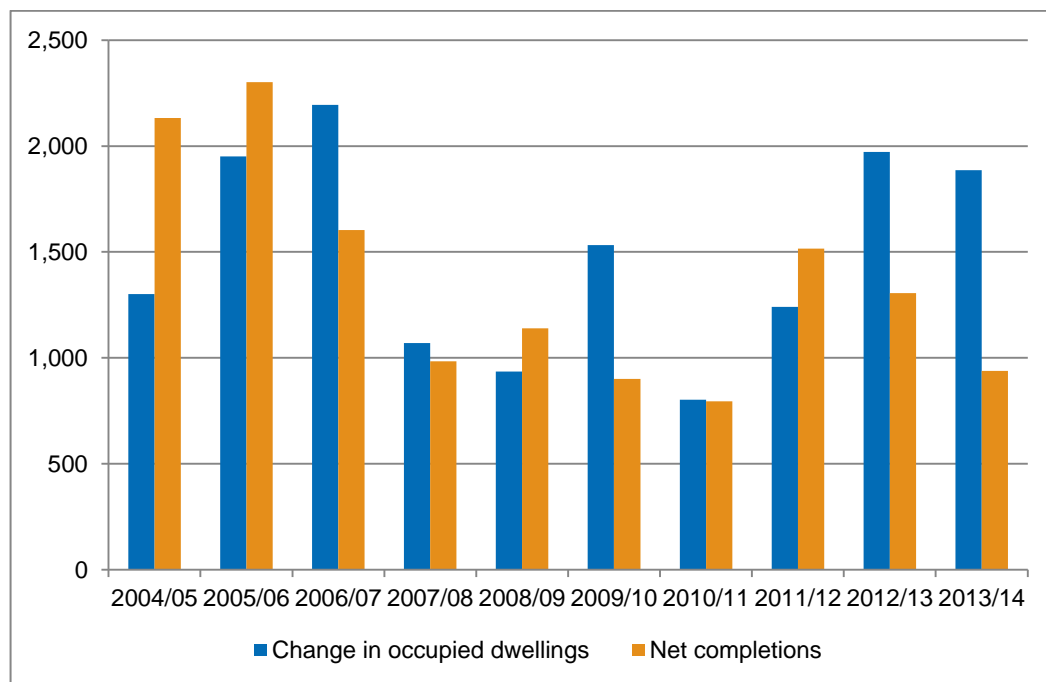
Source: DCLG, Council monitoring data, 2015

5.50   Across TGSE on average over the period 2004/05 to 2013/14, the DCLG data suggests that there has been an increase of approximately 1,490 occupied households per annum. This compares with net completions over the same period of on average approximately 1,360 dwellings per annum. This suggests that demand for properties has slightly out-paced the completion of property, with this likely to have contributed to falling vacancy levels.

5.51   This picture is consistent across all of the authorities with the exception of Thurrock, where the number of completions has exceeded the estimated annual increase in occupied properties. This would suggest that development levels have potentially out-paced demand in the authority over the period.

5.52   Looking at the time series across TGSE, it is apparent that in the first two years (i.e. prior to 2006) the number of completions, which was at its highest level, outpaced the number of occupied households. Subsequent to this, as completion levels have fallen, the opposite has largely occurred, indicating that the demand for properties has caught up with the supply position.

5.53   The last two years stand out as showing demand exceeding the net completion of properties by a more significant amount. This potentially illustrates a level of pent up demand materialising more recently. The extent to which this will place increasing pressures on the available supply of housing provides an important context to the wider review of market signals presented within this section.

Regional Policy Position

5.54   When considering performance against plan targets, however, it is important to recognise that these were set under a different policy framework. The distribution of housing through the RSS was not based exclusively on evidenced levels of need, but also a policy adjustment to take account of recognised constraints and policy ambitions.

5.55   The Thames Gateway, for example, was identified as a nationally significant Growth Area[101], with the influence of London on the TGSE area informing policies which focused on the strengthening of towns through urban regeneration. This responds to the earlier Sustainable Communities Plan[102], which sought to accelerate development in the Thames Gateway through investment in sustainable communities and regeneration

5.56   This is further developed in subsequent documents[103], with a clear policy position that the Thames Gateway can accommodate a substantial share of housing and employment growth in the South East, provided that suitable infrastructure is in place. This reflected the housing capacity of the area, although development of this scale was felt to require a major increase in the rate of development, with higher density development in areas with strong transport links. Thurrock is identified as a Zone of Change – given strong employment growth and development as a logistics hub, with a range of sizeable housing sites – with Southend also identified as a potential area of investment. Basildon was also viewed as an area where the town centre could be strengthened through housing and employment development.

5.57   This policy approach was progressed into the RSS, which noted:

"Essex Thames Gateway presents a unique opportunity reflecting the extensive areas of previously developed land, its proximity to central London, international transport links and access to continental Europe. Urban regeneration coupled with wider environmental enhancements will enable major improvements in quality of life and regional economic performance"[104]

5.58   Basildon, Thurrock and Southend are identified as three key centres for development, with separate policies in the RSS focused on their development. All three policies have clear focuses on urban regeneration, with Thurrock expected to deliver higher levels of

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[101] Government Office for the East of England (2008) East of England Plan
[102] Office of the Deputy Prime Minister (2003) Sustainable communities in the East of England: building for the future
[103] Thames Gateway Regional Planning Bodies (2004) Growth and Regeneration in the Thames Gateway
[104] Government Office for the East of England (2008) East of England Plan (p84)

development by reusing previously developed land. Regeneration of Basildon was also planned, together with expansion to create a sustainable and balanced community, while reuse of previously developed land in Southend-on-Sea was also a key policy.

5.59   Overall, therefore, there was a clear policy ambition to increase development rates in the wider Thames Gateway – including TGSE – in order to promote regeneration, support economic growth and meet wider strategic needs across the region. The housing targets in the RSS are likely, therefore, have been adjusted to meet this policy ambition, rather than to reflect exclusively identified needs in the area.

5.60   It is, however, important to recognise that there is a material difference between the approach adopted within the RSS to derive a housing target and the approach now required through the NPPF. The NPPF represents a '*radical policy change in respect of housing provision*'[105], with a recent High Court decision stating that '*extreme caution*'[106] should be applied by plan-makers seeking to use housing data from now revoked regional strategies.

5.61   The objective assessment of need now represents a central component in evidencing the level of housing which should be planned for, following guidance in the NPPF and PPG. The housing targets in the RSS were not solely based on needs, with policy ambitions also taken into account. It may be, therefore, that while – in those areas where housing targets have not been met – the rate of development has not been as high as anticipated, this may not necessarily have resulted in unmet need for housing arising. Other indicators of unmet need, as considered in this section – such as overcrowding, concealed families and increasing imbalances between supply and demand – will provide important context in this regard.

Land Prices

5.62   The PPG notes that land prices are indicative of the demand for land relative to supply, with price premiums providing direct information on a shortage of land within an area.

5.63   Data published by DCLG shows the average valuation of residential building land with planning permission over the period from 1994 to 2010. This data is only available at a regional level, but nevertheless provides an indication of historic supply and demand in the wider East of England. Land price trends are also presented for England to enable comparison.

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[105] Gallagher Homes Limited Lioncourt Homes Limited v Solihull Metropolitan Borough Council (30 April 2014)
[106] Ibid

Figure 5.18: Average Valuations of Residential Building Land with Outline Planning Permission
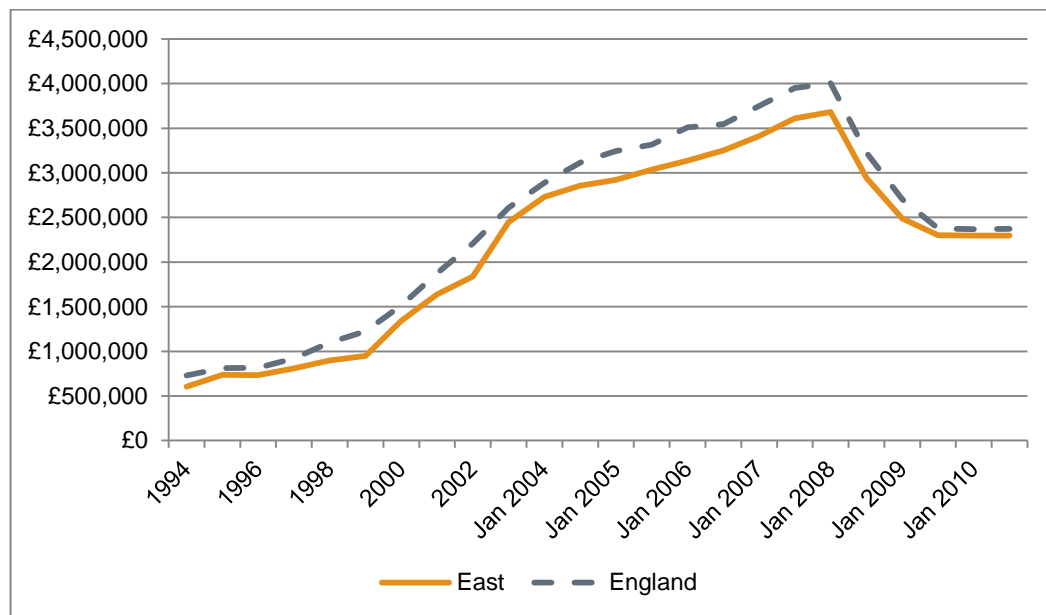
Source: DCLG, 2010

5.64 Historically, the value of residential building land with outline planning permission in the East of England has closely followed the trajectory of the national trend, albeit with slightly lower values. There was significant growth in values prior to the recession, before a substantial fall stimulated by the global financial crisis. Given the decline in market activity, this dataset does not extend beyond 2010.

5.65 The discontinuation of this dataset means that it is challenging to understand how land values have recovered. DCLG have, however, recently published a report setting out estimates of land value for policy appraisal[107]. This sets out an estimated value per hectare of a typical residential site in each local authority in England, and allows a comparison between estimated values in TGSE and surrounding authorities. A weighted average for England – both including and excluding London – is also presented for context.

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[107] DCLG (2015) Land value estimates for policy appraisal

Figure 5.19: Estimated Value of Typical Residential Site

	Estimated value per hectare
Bexley	£7,500,000
Havering	£7,300,000
England – including London	£6,017,000
Basildon	**£4,535,000**
Brentwood	£4,315,000
Chelmsford	£3,575,000
Rochford	**£3,525,000**
Dartford	£3,460,000
Castle Point	**£2,635,000**
Southend-on-Sea	**£2,325,000**
Maldon	£2,260,000
Thurrock	**£2,005,000**
England – excluding London	£1,958,000
Gravesham	£1,936,000
Medway	£1,819,000

Source: DCLG, 2015

5.66 Of the TGSE authorities, this dataset suggests that land values are highest in Basildon, although values remain lower than in neighbouring London Boroughs and the national average when London values are included. When England is excluded, however, this suggests that land value is relatively high in TGSE.

5.67 This dataset is based on a specific point in time, and it is also important to note that evidence has been prepared by the Councils to consider land values when assessing viability. These studies are summarised below:

- An Economic Viability Appraisal[108] was commissioned in **Basildon** as part of the 2012 Strategic Housing Land Availability Assessment (SHLAA), which included evidence on land values. This identified a minimum land value of £200,000 per net acre – equivalent to approximately £500,000 per hectare – although it was noted that values had fallen by around 55% since September 2007. At the peak of the market, land values were considered unsupportable, given intense competition, low supply and high demand. Recent evidence, however, suggested that values were recovering to within around 20% of their peak levels in 2007, especially where sites had implementable planning permission. The medium and long-term demand for land was also considered to be reasonably strong, based on a market consultation exercise;

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[108] Peter Brett Associates (2012) Basildon Borough Council SHLAA Economic Viability Appraisal

- Estimates of land values are made in the Whole Plan Viability Study[109] commissioned by **Castle Point**, suggesting a benchmark land value of £2.2 million per hectare on the mainland and £1.25 million per hectare on Canvey Island, where further remediation costs are required to mitigate against flood risk;

- The **Rochford** Viability Study[110] suggested an average value of £1.85 million per hectare in the district, based on workshop findings, although this study was undertaken in 2010 and could be outdated;

- The **Southend-on-Sea** Combined Viability Study estimates benchmark land values based on a range of primarily commercial development types, with an assumed 20% premium applied to each site. This suggests values of between £0.3 million to £4.1 million per hectare[111], although it is noted that it challenging to identify benchmarks at which land will come forward for development, particularly in urban areas; and

- Viability evidence[112] prepared to support CIL in **Thurrock** applies benchmark land values of £300,000 per hectare for areas of low demand and low value, increasing to around £800,000 per hectare in medium and higher demand areas. These figures were tested with local agents in April 2011 – suggesting that at this time they remained useful and relevant – although again it is important to note that the market has continued to recover since this point and these values may now be surpassed.

5.68   This evidence – though undertaken at various points of time, thereby reflecting different periods of the residential land market – does not completely align with the DCLG data presented above, and there is therefore some uncertainty about appropriate benchmark land values in TGSE. The evidence also largely fails to consider change in land values, and therefore does not enable an understanding of how residential land values have changed over time as required by the PPG. Market evidence published by property consultancies therefore provides beneficial wider context on change in the national and regional land market.

5.69   Savills highlight that land value increases have begun to slow nationally, following a period of recovery after the recession. There does, however, remain intense demand for land in the South East, with land values surpassing their pre-recession peak in some areas[113]. They feel that rises are likely to continue over the medium term in high demand areas – such as those with strong links to London and Green Belt land constraints, such as Oxford and Sevenoaks – unless there is a significant increase of supply on the market.

5.70   Similar research has been published by Knight Frank[114], who again found that the increase in residential land values has slowed. There does, however, remain regional variation, with the South East the only area outside London to see year-on-year growth

[109] Peter Brett Associates (2013) Castle Point New Local Plan Whole Plan Viability Study
[110] Three Dragons (2010) Rochford District Council Viability Study
[111] Southend-on-Sea Borough Council (2013) Combined Policy Viability Study
[112] URS (2012) Thurrock CIL: Residential Viability Assessment
[113] Savills (May 2015) Market in Minutes – UK Residential Development Land
[114] Knight Frank (2015) Residential Development Land Index – Q1 2015

in average land values and the East of England seeing static growth in values. The national fall has been driven by eased demand from major house builders, many of whom have been replenishing their supply pipeline over the past 18 months and are now bringing land through the planning system.

5.71 Overall, it is challenging to understand how land values have changed in TGSE, although evidence suggests that parts of the area have higher land values which may be driven by high demand – due to the proximity to London, with strong transport links – and supply constraints, such as the Green Belt. There may, therefore, be a price premium for residential land in higher value areas of TGSE, where there is high demand for housing.

Overcrowded, Concealed and Homeless Households

5.72 The PPG suggests that indicators on overcrowding, concealed and shared households, homelessness and the numbers in temporary accommodation should be analysed, given that they can be indicative of an unmet need for housing. The PPG states that longer term increase in the number of such households could signal a need to consider increasing planned housing numbers[115].

5.73 The 2011 Census shows the number of occupants and the number of bedrooms in dwellings, allowing an understanding of overcrowding. The following table summarises the proportion of households who are overcrowded – with at least one fewer bedroom than required – based on the bedroom standard, as a proportion of all households.

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[115] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

Figure 5.20: Proportion of Households Overcrowded (Bedrooms) 2011

	Total overcrowded households (bedrooms)	Proportion of households overcrowded
Thurrock	**3,378**	**5.4%**
Gravesham	2,145	5.3%
Bexley	4,367	4.7%
Dartford	1,902	4.7%
Southend-on-Sea	**3,545**	**4.7%**
England	1,024,473	4.6%
Havering	3,901	4.0%
Medway	4,176	3.9%
Basildon	**2,719**	**3.7%**
Brentwood	970	3.2%
Castle Point	**1,005**	**2.8%**
Chelmsford	1,865	2.7%
Rochford	**863**	**2.6%**
Maldon	443	1.7%

Source: Census 2011

5.74   Thurrock evidently has the highest levels of overcrowding – based on the bedroom standard – with 5.4% of all households containing at least one fewer bedroom than required. This exceeds all neighbouring authorities and the national average. Southend-on-Sea also has relatively high levels of overcrowding, relative to England. Overcrowding in Basildon, Castle Point and particularly Rochford, however, is comparatively low, compared to surrounding authorities.

5.75   Given the number of bedrooms was not recorded in the 2001 Census, it is challenging to profile how the level of overcrowding has changed in TGSE over recent years. However, the Census in both 2001 and 2011 recorded an occupancy rating based on the number of rooms in a household, allowing an understanding of whether there has been an increase in the number of overcrowded households based on the room standard. This is presented in the following table.

Figure 5.21: Change in Overcrowded Households (Rooms) 2001 – 2011

	2001	2011	Change	% change
Dartford	2,238	3,665	1,427	64%
Gravesham	2,187	3,507	1,320	60%
Brentwood	1,283	1,971	688	54%
Thurrock	**3,849**	**5,594**	**1,745**	**45%**
Chelmsford	2,791	4,024	1,233	44%
Havering	5,141	7,166	2,025	39%
Bexley	5,596	7,488	1,892	34%
England	1,457,512	1,928,596	471,084	32%
Southend-on-Sea	**5,422**	**7,155**	**1,733**	**32%**
Medway	6,009	7,838	1,829	30%
Basildon	**4,036**	**5,195**	**1,159**	**29%**
Rochford	**1,157**	**1,437**	**280**	**24%**
Castle Point	**1,365**	**1,614**	**249**	**18%**
Maldon	858	916	58	7%

Source: Census 2011; Census 2001

5.76   Thurrock has seen the greatest increase in the number of households living with at least one fewer room than required, based on the room standard, and again this exceeds the national rate of growth. This suggests an increased tendency towards occupying smaller properties, although other authorities – particularly Dartford and Gravesham – have seen a stronger increase in this indicator. The other TGSE authorities, however, have seen a slower increase in the number of overcrowded households based on the room standard, falling below the national average and most neighbouring authorities.

5.77   A further indicator is the proportion of families who are concealed, with a family classified as concealed if they are a family reference person (FRP) but not a household reference person (HRP). This indicates that they are not the main family in the household, and may suggest that they have been restricted from forming due to a range of factors, including affordability pressures. This is summarised in the following table, broken down by the age of the FRP and sorted by the proportion of FRPs of all ages who are concealed.

Figure 5.22: Proportion of Families Concealed by Age of FRP 2011

	Age of FRP					
	Under 24	25 – 34	35 – 49	50 – 64	65+	All ages
Gravesham	14.6%	6.2%	1.1%	1.2%	2.5%	2.6%
Bexley	16.0%	5.3%	0.7%	0.9%	1.8%	2.0%
England	12.8%	4.0%	0.8%	0.9%	1.8%	1.9%
Dartford	12.4%	3.3%	0.6%	0.9%	2.2%	1.8%
Havering	15.1%	4.6%	0.7%	0.7%	1.7%	1.8%
Castle Point	**23.3%**	**4.9%**	**1.0%**	**0.5%**	**1.2%**	**1.7%**
Medway	13.0%	3.5%	0.7%	0.7%	1.6%	1.7%
Thurrock	**14.7%**	**3.0%**	**0.7%**	**0.6%**	**1.7%**	**1.7%**
Rochford	**22.7%**	**4.3%**	**0.6%**	**0.6%**	**1.4%**	**1.5%**
Southend-on-Sea	**13.9%**	**2.5%**	**0.8%**	**0.7%**	**1.4%**	**1.5%**
Basildon	**13.5%**	**2.8%**	**0.6%**	**0.6%**	**1.2%**	**1.4%**
Maldon	16.6%	3.8%	0.5%	0.5%	1.4%	1.3%
Brentwood	13.1%	3.5%	0.6%	0.6%	0.9%	1.1%
Chelmsford	12.8%	2.7%	0.3%	0.5%	1.0%	1.1%

Source: Census 2011

5.78 Based on all ages, the level of concealment in TGSE is relatively low, with fewer than 2% of all families classified as concealed. However, this overall figure does mask important trends in younger age groups. For example, families aged 24 and under in Castle Point and Rochford have notably high levels of concealment, and all TGSE authorities exceed the national rate. There are also relatively high levels of concealment in those aged 25 to 34 in these authorities. This suggests that younger families in Castle Point and Rochford in particular are less likely to be independent households, and may be constrained from forming by other factors, which may include the affordability of housing.

5.79 Again, it is important to understand how this has changed over recent years, although it is not possible to break this down by age. The following table compares the number of concealed families of all ages in 2001 and 2011 in TGSE, neighbouring authorities and England.

Figure 5.23: Change in Concealed Families 2001 – 2011

	2001	2011	Change	% change
Dartford	211	503	292	138.4%
Rochford	**181**	**371**	**190**	**105.0%**
Southend-on-Sea	**371**	**747**	**376**	**101.3%**
Basildon	**366**	**716**	**350**	**95.6%**
Havering	637	1,221	584	91.7%
Castle Point	**242**	**449**	**207**	**85.5%**
Thurrock	**425**	**777**	**352**	**82.8%**
Gravesham	426	767	341	80.0%
Brentwood	136	243	107	78.7%
Chelmsford	293	523	230	78.5%
England	161,254	275,954	114,700	71.1%
Bexley	777	1,313	536	69.0%
Maldon	141	238	97	68.8%
Medway	782	1,312	530	67.8%

Source: Census 2011; Census 2001

5.80   1,475 additional concealed families were recorded in TGSE at the 2011 Census relative to 2001, with Rochford, Southend-on-Sea and Basildon seeing the greatest increases compared to neighbouring authorities and England. Indeed, only Dartford saw a larger increase over this time, with Castle Point and Thurrock also seeing relatively significant growth in the number of concealed families.

5.81   Finally, the PPG suggests that the number of homeless households – and those in temporary accommodation – should be established, given that this demonstrates unmet need for housing in an area. Housing Register data for each authority is analysed in section 8 as part of the assessment of affordable housing need, and this highlights that there are 477 households in priority bands who are currently homeless or in temporary accommodation. A high proportion of these households are in Thurrock.

5.82   Data published by DCLG also shows the number of households who have been accepted as homeless and classified in priority need on an annual basis, and this shows that an average of around 650 households have been classified as homeless in this way across TGSE annually since 2004. This is summarised in the following graph, highlighting that Basildon in particular has seen in an increase in the number of priority homeless households with both Southend-on-Sea and Thurrock experiencing an overall fall since 2004.

Figure 5.24: Households Accepted as Homeless and Classified in Priority Need[116]
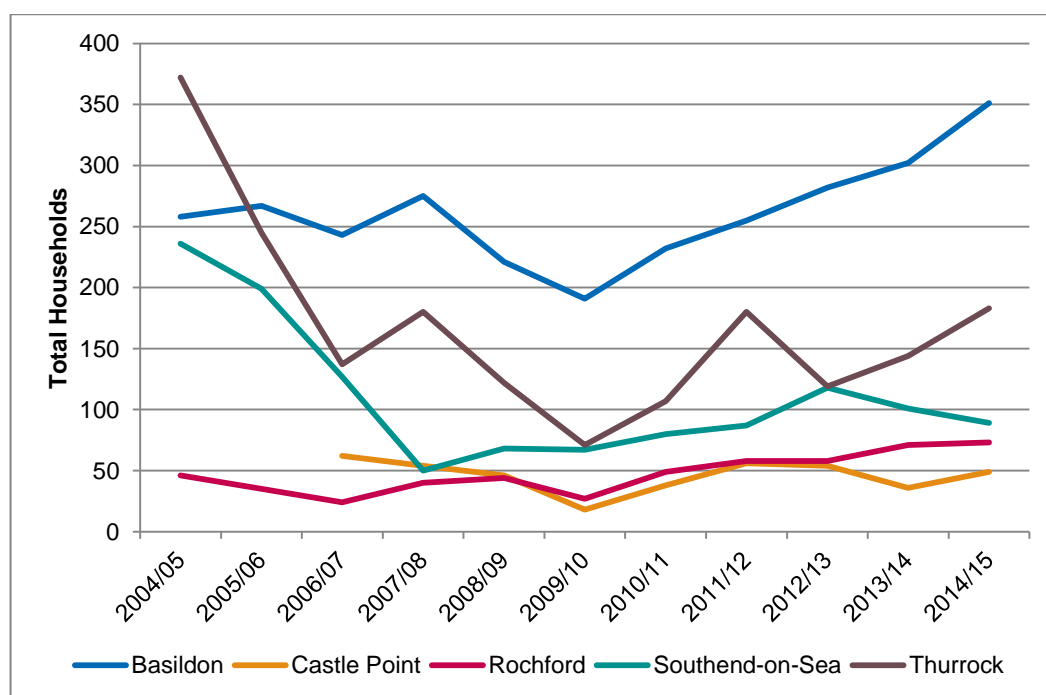
Source: DCLG, 2015

Summary

5.83   The following table compares the rate of change seen in a number of market signals in TGSE to other neighbouring authorities and the national rate of change, where comparable data is available[117]. This draws together the evidence presented in this section.

5.84   A rank of 1 – coloured in orange – indicates that an area has seen the greatest worsening based on each indicator, relative to the other areas presented. A rank of 14 – coloured in blue – suggests more favourable performance against each signal.

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[116] No data is published for Castle Point in 2005/06 and therefore trend analysis for the borough runs from 2006/07

[117] Land prices and rate of development are not considered due to absence of comparable change over time

Figure 5.25: Market Signals Summary

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	Bexley	Brentwood	Chelmsford	Dartford	Gravesham	Havering	Maldon	Medway	England
House prices														
Change (mean) 2001 - 2014	5	7	13	1	6	4	14	3	11	12	8	9	10	2
Change (LQ) 2001 - 2014	5	7	13	1	4	11	14	10	3	9	12	8	6	2
Rents (2 beds)														
Change (mean) 2011 - 2014	11	14	10	13	6	2	7	5	1	4	3	12	9	8
Change (LQ) 2011 - 2014	14	13	11	8	4	2	6	4	1	3	7	10	9	12
Affordability														
Change 2001 – 2013	1	4	9	5	2	6	13	10	3	11	14	12	7	8
Overcrowding														
Change 2001 - 2011	11	13	12	9	4	7	3	5	1	2	6	14	10	8
Concealed Families														
Change 2001 - 11	4	6	2	3	7	12	9	10	1	8	5	13	14	11

Source: Turley, 2015

5.85   Whilst TGSE is in absolute terms an area of comparatively low house prices when compared with many neighbouring areas – as shown in the defining of the HMA in section 2 and in the analysis in this section – it is apparent that it demonstrates symptoms of worsening market signals, in the context of the PPG.

5.86   The picture is by no means consistent across the market signals, nor does the area as a whole – or any one authority – demonstrate a significant or consistent level of market imbalance when compared in particular against national benchmarks. Unlike many areas in and around London and across the southern regions, there are comparatively large parts where prices and rents are comparatively low and where there is evidence of a demand for housing as a result.

5.87   Looking at the market signals evidence for each authority separately, however, as noted above suggests evidence that affordability challenges remain an issue for many local households where demand pressures appear to be outpacing the supply of housing.

5.88   It is evident that house price growth in Southend-on-Sea has been significant, outpacing the growth seen in all neighbouring authorities and England over the same period. This growth has been seen in both mean and lower quartile properties, suggesting pressure at both the middle and lower end of the market, although it is noted within this section that this has reflected a move away from a relatively suppressed, lower value market in the borough. Values also remain lower than in neighbouring areas such as Castle Point and Rochford. Indeed, the latter has seen a smaller growth in prices, although it is notable that the district has historically been characterised by relatively high values.

5.89   Thurrock has seen relatively significant growth in rents at the lower end of the market, suggesting pressure upon entry-level private rented stock, while Castle Point and Basildon have seen more limited growth in rents for two bedroom properties.

5.90   Affordability has worsened to a greater extent in Basildon compared to surrounding areas and England, based on the relationship between work-based earnings and lower quartile house prices. Thurrock has also seen a worsening over the same period, suggesting that price growth in the two authorities has outstripped rises in earnings for people working in each authority. Affordability has also worsened across TGSE when taking residence-based earnings into account, noting that those households commuting to work in London typically earn higher incomes.

5.91   Growth in overcrowding – based on the room standard – has been relatively average, although Thurrock ranks comparatively highly compared to the other TGSE authorities and England. Castle Point is amongst the authorities to see the slowest increase in overcrowded households, suggesting that a trend towards occupying smaller property has been less prevalent in the borough.

5.92   The authorities do rank higher, however, when considering change in concealed families, with Rochford in particular seeing a sizeable growth in the number of families who are not independent households. As the earlier analysis has shown, a significant number of these families are likely to be younger, given the high levels of concealment recorded in the 2011 Census for families aged 34 and under.

Implications of Market Signals

5.93   The analysis above highlights a moderate worsening in a number of market signals in TGSE, with evidence of at least one indicator worsening in each of the authorities. Overall, the evidence points towards affordability pressures across the HMA, and on this basis it is considered appropriate to consider the need for an upward adjustment to the implied housing need from the household projections.

5.94   To date, there has been a relatively broad interpretation as to the approach to setting a 'reasonable' adjustment to respond to market signals.

5.95   The Inspector's conclusion reached in the examination of the Eastleigh Local Plan is widely cited as a benchmark and indication of the interpretation of the PPG with regards to this methodological step. The Inspector in Eastleigh advocated consideration of a 10% uplift to respond to the *'modest'* pressure of market signals recognised in the SHMA itself[118]. The interpretation of modest pressure recognised that:

"Not all signals demonstrate that Eastleigh is worse than the national or regional/sub regional averages. But on some crucial indicators it is. Between 1997 and 2012, the affordability ratio for Eastleigh worsened by 97%. For the Southampton HMA and England the figures are 92% and 85% respectively (Barton Willmore, Open House October 2014, Table 6.4, for Hallam Land). Time series rental data from the Valuation Office Agency is available only between 2011 and 2013, but indicates rents rising by 7.4% in Eastleigh compared with 4.4% nationally and 6.9% in Hampshire (Open House, paragraph 5.12). Overall, market signals do justify an upward adjustment above the housing need derived from demographic projections only." (paragraph 40)

5.96   Subsequently, however, there has been a notable level of inconsistency in the interpretation of the guidance in the context of appropriate and reasonable levels of adjustment. For example, the Inspector considering the Horsham Plan did not suggest any specific proportionate uplift being required in relation to market signals[119]. He did, however, consider a modelling based approach in which household formation rates for younger households were assumed to improve in the future to levels seen prior to the onset of significant price rises in the 2000s as an appropriate response:

"The Council have included a modest upwards adjustment in their OAN figure of 22 dpa to account for affordability pressure in the 25-34 age group, evidenced by substantial growth in private rented sector accommodation and the number of persons in HMOs, even though these indicators are again in line with HMA and national trends. I consider there is no strong case for a significant uplift to account for market signals in Horsham district, which are very similar to those elsewhere across virtually all of the south east. The Council's modest increase appears appropriate therefore."

5.97   The Inspector considering the Stratford-on-Avon Core Strategy also suggested in his interim report that no uplift was required in relation to market signal, albeit again it was noted that this position was reached in balancing up the uplift from the demographic

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[118] 'Report on the Examination into Eastleigh Borough Council's Eastleigh Borough Local Plan 2011 – 29', 11th February 2015
[119] 'Report on the Examination into Horsham District Planning Framework' 8th October 2015

projections to account for anticipated economic growth in the area[120]. The Inspector considered the implications of past rates of development within his summarising of the market signals evidence, concluding:

"Turning to rate of development, the Guidance identifies that supply indicators include the flow of new permissions expressed as a number of units per year relative to the planned number and the flow of actual completions per year relative to the planned number. The moratorium meant that planned supply was intended to be low and so the existence of the moratorium per se is not a reason to conclude that this indicator is met. Supply is taking time to recover but there is no evidence to demonstrate this is because planning permissions have not been implemented. Evidence in respect of Meon Vale indicates that sales have been high with completions for the current financial year running ahead of the Council's estimate. Given the timeframe of the CS there is no basis to increase supply to reflect the likelihood of under-delivery of the planned housing numbers." (paragraph 51)

5.98   A comparable approach was recommended by the Inspector who had also examined the Eastleigh Local Plan when considering the Cornwall Local Plan[121]. Again, whilst the Inspector recognised that there were significant sustained affordability issues in the area, no specific market signals uplift was recommended, although the need for an uplift associated with second home ownership and economic signals was considered as being required. The Inspector noted:

"From the range of signals highlighted in the Council's evidence… and in representations…, I consider that no consistent picture emerges…Between 2003 – 2008, the affordability ratio for Cornwall worsened significantly, rising well above the regional figure, which in turn worsened compared with the figure for England. All 3 of these ratios improved during the recession with Cornwall showing the most improvement…But Cornwall remains significantly above the regional and national figures. Over the long term, the picture is of a worsening trend and a position significantly worse than the regional and national averages. National guidance is that a worsening trend any relevant market signal should result in an uplift. But for the reasons given below I do not consider that I should require such an uplift to be made for Cornwall at this time." (paragraphs 3.11 and 3.12)

5.99   By contrast, the Inspector considering the Canterbury Local Plan recommended the use of a 20% uplift associated with evidence of market signals[122]. He advised that this uplift needed to be considered in the context of other adjustments relating to household formation rates and aligning population change with economic growth. He noted that the range of scenarios suggested a need of between 744 and 853 dpa. In concluding his recommendations regarding the OAN, the Inspector noted in the context of the concluded range:

"….within that the amount of uplift to be applied to the starting point estimate is a matter of judgement…The market signals uplift of 20% is a very significant one and there would

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[120] 'Examination of the Stratford-on-Avon Core Strategy Inspector's Interim Conclusions', March 2015
[121] 'Cornwall Local Plan Strategic Policies – Examination: Preliminary Findings Following the Hearings in May 2015', June 2015
[122] 'Canterbury District Local Plan: Note on main outcomes of Stage 1 hearings', August 2015

be a degree of overlap between that and some of the other assumptions. In that context, figures in the upper end of the range would not be appropriate. The middle range figure of 803 dwellings identified by NLP would be almost 30% higher than the 620 dpa starting point…Taking these factors in the round it seems to me that 803 dpa would achieve an uplift that took reasonable account of market signals, economic factors, a return to higher rates of household formation and affordable housing needs. Accordingly it represents the full OAN for the Plan area." (paragraphs 25 and 26)

5.100   It is apparent from the Inspectors' reports that it is important that a clear assessment of market signals is presented. The extent to which the evidence from these signals can be used to support or justify an uplift to the OAN, however, appears to represent a more challenging aspect to reach a point of consensus of approach. It is apparent that a number of Inspectors have sought to quantify a specific reasonable uplift, where others have sought to consider it more in the round against other adjustments from the demographic projection of need.

5.101   In order to provide a balanced and evidenced response to market signals – in the context of the above variation and ambiguity regarding the scale of adjustment required – this section considers the potential impact of worsening affordability on demographic factors, and in particular household formation rates.

5.102   The PPG itself references that household formation rates can be constrained by worsening affordability. This is also acknowledged within the methodological report which accompanied the release of the 2012-based household projections in the context of evidenced changes to formation rates from 2001:

"At the present time, the results from the Census 2011 show that the 2008-based projections were overestimating the rate of household formation and support the evidence from the Labour Force Survey that household representative rates for some (particularly younger) age groups have fallen markedly since the 2001 Census. However for this update, it has not been possible to include detailed data on Stage One household representative from the Census 2011"[123]

5.103   Appendix 5 shows how headship rates have changed historically in different age groups in each authority in TGSE, and illustrates how they are projected to change under the 2012 SNHP. These charts show that headship rates have fallen in younger households in particular, with the past decade seeing a notable decline in household formation which – for most authorities – is projected to be sustained, failing to recover to levels of household formation that were seen prior to this worsening.

5.104   The following section therefore considers a sensitivity examining a positive adjustment to headship rates across TGSE. Section 7 considers this adjustment alongside other adjustments associated with demographic and economic factors in deriving a recommended OAN range.

5.105   This approach is considered to represent an appropriate evidence based response to the impact of evidence of an imbalance in supply and demand from a needs or demand based perspective. It is recognised that further supply based adjustments can be

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[123] DCLG (2015) Household Projections 2012-based: Methodological Report

considered alongside this uplift, with this being an important consideration not only in concluding the OAN in section 7 but also in the development of the evidence into planning policy.

Headship Rate Sensitivity

5.106　As noted in the PPG, sensitivity testing can be undertaken where there is evidence that local factors have influenced the formation of new households. Given that there is evidence that formation rates amongst younger households – those aged 20 to 39 – in TGSE may have been suppressed by wider market factors, modelling has therefore been undertaken to apply alternative household formation rates to younger household groups.

5.107　This sensitivity explores the impact of a reversal of declining household formation amongst younger age groups – where this has not already been anticipated in the 2012 SNHP dataset – to reach a level last seen in 2001. This year is used as a benchmark, given that Figure 5.1 shows that price growth far exceeded comparable rises in incomes from this point at a national level. 2001 was the last point at which the ratio between house prices and earnings was at the long-term average, and a return to 2001 rates therefore could be viewed as exploring the impact of returning to a set of market conditions which suggested a healthier and more sustainable housing market. It should be noted, however, that the supply of housing at a national level in 2001 continued to fall short of projected levels of need, and therefore could potentially have continued to inhibit the ability of households to form.

5.108　To apply this adjustment, therefore, respective 2001 headship rates are assumed to be reached by 2024 in the following age groups[124]:

- **Basildon** – 20 – 24, 25 – 29 and 30 – 34;

- **Castle Point** – 20 – 24, 25 – 29, 30 – 34 and 35 – 39;

- **Rochford** – 20 – 24, 25 – 29, 30 – 34 and 35 – 39;

- **Southend-on-Sea** – 20 – 24, 25 – 29, 30 – 34 and 35 – 39; and

- **Thurrock** – 20 – 24, 25 – 29, 30 – 34 and 35 – 39.

5.109　The following table shows the impact of adjusting headship rates, initially under the 2012 SNPP which represents the demographic 'starting point' when assessing housing need. This is presented at housing market area level, with local authority level outputs outlined at Appendix 2.

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[124] Age groups selected where recovery in headship rates has not been already assumed by 2012 SNHP

Figure 5.26: Headship Rate Sensitivity – SNPP 2012 (2014 – 2037)

	Dwellings per annum 2014 – 2037
2012 headship rates	2,886
Adjusted headship rates	**3,087**
Additional dwellings per annum	201
% uplift	7.0%

Source: Edge Analytics, 2015

5.110   The adjustment increases the implied level of housing need under this scenario, in order to enable the formation of additional younger households. This represents an uplift of approximately 7% across the HMA, which – as shown in the following table – is broadly consistent across all of the scenarios taken forward based on the analysis presented in sections 3 and 4.

Figure 5.27: Headship Rate Sensitivity – TGSE (2014 – 2037)

		2012 Headship Rates	Adjusted Headship Rates
		Dwellings per annum	Dwellings per annum
Demographic	Past Growth 5 year	2,587	2,789
Demographic	Past Growth 10 year	2,610	2,818
Demographic	Past Growth 5yr inc UPC	2,777	2,979
Demographic	SNPP 2012	2,886	3,087
Demographic	Past Growth 10yr inc UPC	2,933	3,141
Demographic	SNPP London	3,070	3,272
Economic	Experian (people) OBR	3,159	3,367
Economic	Experian (jobs) OBR	3,486	3,699
Economic	Experian (people)	3,530	3,744

Source: Edge Analytics, 2015

5.111   The level of adjustment varies across each of the authorities from 5.4% in Thurrock to 10.6% in Rochford (further detail is included in Appendix 2). This reflects the extent to which household formation rates have been suppressed and the age profile of the population in each authority.

Summary and Implications

5.112   This section has considered the balance between supply and demand in TGSE, through an analysis of a number of market signals identified in the PPG which are summarised below:

- All authorities have followed the national trend in seeing long-term growth in **house prices**, with Southend-on-Sea in particular seeing substantial growth which outpaced all neighbouring authorities the national average. While this suggests pressure at both the lower end and middle of the market in Southend-on-Sea, this does – to an extent – reflect a move away from a market which has historically been characterised by relative under-performance in the wider context. This contrasts with Rochford, which has seen a smaller growth in house prices which have nevertheless grown from a historically high base;

- Thurrock is the only authority where mean **rents** for two bedroom properties have grown at a faster rate than nationally, with Castle Point seeing little growth;

- **Affordability** has worsened to a greater extent in Basildon compared to surrounding areas and England, with Thurrock also seeing a worsening which suggests that price growth at the lower end of the market has outpaced increases in earnings for people working in each authority. Affordability has also worsened across all authorities when taking residence-based earnings into account, noting that those households commuting to work in London typically earn higher incomes;

- Around 1,430 dwellings have been completed annually on average across TGSE since 2001, although the **rate of development** has fallen short of the levels planned in the RSS. A net total of around 10,300 fewer dwellings have been delivered across TGSE relative to planned supply up to 2014 – the base date of the modelling by Edge Analytics – and this is largely driven by undersupply in Basildon and Thurrock. The scale of undersupply increased following the onset of the recession with TGSE seeing levels of development much closer to the planned target prior to 2007. It is, however, important to acknowledge the changing policy context, with the targets in the RSS clearly underpinned by a policy of urban regeneration in the Thames Gateway, with an ambition to increase development rates to promote regeneration, support economic growth and meet wider strategic needs. The housing targets are likely to have therefore been adjusted to meet this policy ambition, rather than reflect identified needs arising in the area;

- It is challenging to understand how **land prices** have changed in TGSE, due to an absence of detailed market evidence, and locally published evidence does not entirely align with available national datasets. Market intelligence does, however, suggest that some areas with high demand could have higher land values, particularly due to the proximity of London – with strong transport links – and supply constraints such as Green Belt. There may, therefore, be a price premium for residential land in higher value areas of TGSE, where there is a high demand for housing and a limited supply of available residential land; and

- Growth in **overcrowding** has been relatively aligned with surrounding authorities and England, although Thurrock has seen a comparably significant growth which suggests that households are increasingly occupying smaller properties. This trend appears to have been less prevalent in Castle Point, however. The authorities do rank higher when considering change in **concealed families**, with

Basildon in particular seeing a sizeable growth in the number of families who are not independent households. Furthermore, based on Council waiting list data, there are currently 477 households in priority bands who are currently classified as **homeless or in temporary accommodation**, with a high proportion of these households currently located in Thurrock.

5.113 Whilst TGSE is in absolute terms an area of comparatively low house prices when compared with many neighbouring areas – as shown in the defining of the HMA in section 2 and in the analysis in this section – it is apparent that it demonstrates symptoms of worsening market signals, in the context of the PPG.

5.114 The picture is by no means consistent across the market signals, nor does the area as a whole – or any one authority – demonstrate a significant or consistent level of market imbalance when compared in particular against national benchmarks. Unlike many areas in and around London and across the southern regions, there are comparatively large parts where prices and rents are comparatively low and where there is evidence of a demand for housing as a result.

5.115 Overall, the evidence points towards affordability pressures across the HMA, on which basis it is considered appropriate to assess the need for an upward adjustment to the implied housing need from the household projections. It is apparent that there is a level of variation in the interpretation of market signals and the application of a reasonable uplift in the context of a range of Inspectors' decisions.

5.116 It is, however, apparent that there is evidence of household formation rates being suppressed over recent years in each of the TGSE authorities. In order to present an evidenced based positive adjustment responding to this suppression of household formation rates – of which affordability pressures are likely to have been a significant contributing factor – sensitivity testing has been undertaken by Edge Analytics, in line with the PPG. This assumes that household formation rates return to 2001 rates in younger age groups – where this is not already projected – by 2024, given that this was the last point at which the ratio between house prices and earnings was at the long-term average. A return to this set of market conditions could therefore represent a healthier and more sustainable housing market.

5.117 The adjustment is applied to all scenarios, and uplifts the implied level of housing need to allow for the formation of additional younger households. This represents an uplift of around 7% across the HMA. The scale of uplift varies across each of the authorities from approximately 5.4% to 10.6%, reflecting the extent to which household formation rates have been suppressed and the age profile of the population in each authority.

6. Calculating Affordable Housing Need

6.1 The NPPF requires local authorities to assess the number of affordable homes that are evidenced as being required, with affordable housing defined as:

"Social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market. Eligibility is determined with regard to local incomes and local house prices. Affordable housing should include provisions to remain at an affordable price for future eligible households or for the subsidy to be recycled for alternative housing provision"[125]

6.2 The PPG provides guidance on the approach to be adopted in the calculation of affordable housing needs, noting that:

"Plan makers working with relevant colleagues within their local authority (eg housing, health and social care departments) will need to estimate the number of households and projected households who lack their own housing and who cannot afford to meet their housing needs in the market.

This calculation involves adding together the current unmet housing need and the projected future housing need and then subtracting this from the current supply of affordable housing stock"[126]

6.3 The outcome of the assessment should be a calculation of the total net need for affordable housing – subtracting the total available stock from the total gross need – with the resultant need converted into an annual flow.

6.4 The calculation of affordable housing need is primarily based upon a point-in-time assessment of up-to-date evidence. The calculation is therefore reflective of current housing market conditions and in particular the affordability context relating to current day incomes and housing costs and the existing supply of affordable housing to address affordable housing need. Whilst the calculation presents future need for affordable housing to 2037, it is important that levels of need are regularly monitored and updated recognising changes to the housing market context and the supply of affordable housing.

6.5 The calculation of the overall need for affordable housing is intended to provide an estimate of the volume of affordable housing required on an annual basis to meet need. This is based on data supplied by the Councils and secondary datasets identified throughout.

6.6 Each stage of the calculation is summarised and explained sequentially below. It should be noted that figures may not sum due to rounding.

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[125] DCLG (2012) National Planning Policy Framework (p50, Annex 2)
[126] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_022

Current Unmet Gross Need

6.7 At the current point in time, as a result of sustained affordability issues across the country over a number of years, the majority of areas have an existing unmet need for affordable housing with a backlog of households classified as in need. This backlog can be considered to be made up of a range of types of household in need, from those in urgent need of housing – without a current permanent home – to those who are living in overcrowded or substandard homes, but are already housed. This component of the calculation consists of three stages, introduced and presented below.

Stage 1 – Current Housing Need (Gross Backlog)

6.8 Each of the TGSE authorities maintains a Housing Register, which is acknowledged in the PPG as a source of relevant information on the number of households currently in need of affordable housing. Each of the Councils has reviewed the data held within the Register in detail in order to understand potential limitations to the information presented and its comparability across the individual authorities. Whilst this has identified a number of potential variations in the way in which data is recorded and assessed, there is a high degree of consistency and the dataset is used by each of the authorities' housing teams in analysing current housing need. In this context, the information supplied by the Councils to inform the assessment is considered a robust data source to use.

6.9 The PPG recognises that there are other potential data sources for understanding current need, including local authority data held on homeless households and those in temporary accommodation. It also identifies that the Census provides data on concealed families and overcrowding. This section considers these datasets for the authorities, and draws comparison with the analysis of the Housing Register. It is noted that over five years have now passed since the 2011 Census, potentially limiting its comparison with more up-to-date local data from other sources including the Housing Register.

6.10 Based on data provided by the Councils, there are currently around 12,400 households on waiting lists in TGSE, as set out in the following table.

Figure 6.1: Households on Housing Registers 2015/16

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	**TGSE**
Households	1,640	1,650	612	1,455	7,040	**12,397**

Source: Council data

6.11 Local authorities allocate applicants to a priority band, in order to identify households in the greatest need of affordable housing and those who have little or no need. This is based on authorities' respective allocations policies, while waiting lists are also actively managed to identify households who are not actively bidding for affordable housing.

6.12 It is important to recognise that the allocations policies applied in each of the TGSE authorities are not directly comparable, with qualification, banding, local connection and income threshold criteria often varying to a degree. However, in order to identify those

households in greatest need of affordable housing – and not those considered to have little or no need – the waiting lists have been filtered by band through dialogue with the respective Councils, with the calculation assuming that households in the following bands are currently in the greatest need of housing:

- **Basildon** – Bands A – D;

- **Castle Point** – Bands A – C;

- **Rochford** – Bands A – C;

- **Southend-on-Sea** – Bands A – C, plus those in Low band with a local connection; and

- **Thurrock** – Bands 1 – 3.

6.13 Based on interpretation of the Councils' Housing Registers, the first stage of the calculation quantifies households currently in the greatest need of affordable housing. Of this total, the number of households currently occupying affordable housing is identified, given that these households will vacate an affordable property when their need is met.

Figure 6.2: Stage 1 – Current Housing Need

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
1.1 Existing affordable housing tenants in need	Housing Register	426	145	100	366	348	**1,385**
1.2 Other groups on Housing Register	Housing Register, excluding 1.1	494	417	455	756	353	**2,475**
1.3 Total current housing need (gross)	**1.1 + 1.2**	**920**	**562**	**555**	**1,122**	**701**	**3,860**

6.14 Across TGSE, the evidence suggests that around 3,860 households are currently in need, based on their respective authorities' allocations policy and excluding those who are considered to have little or no affordable housing need. This includes 1,385 households who are currently occupying affordable housing.

6.15 It is important to note that this stage is based solely on households identifying themselves as in need by registering for affordable housing through the waiting list. As

noted in the introduction to this section, a range of other data sources can also be considered to understand and compare the extent to which households' needs are not being met. The analysis of market signals in section 5, for example, drew upon Census data to show the number of concealed families and overcrowded households. This is replicated and summarised in the following table.

Figure 6.3:   Concealed Families and Overcrowded Households 2011

	Concealed families		Overcrowded households	
	Total	%	Total	%
Basildon	716	1.4%	2,719	3.7%
Castle Point	449	1.7%	1,005	2.8%
Rochford	371	1.5%	863	2.6%
Southend-on-Sea	747	1.5%	3,545	4.7%
Thurrock	777	1.7%	3,378	5.4%
TGSE	**3,060**	**1.6%**	**11,510**	**4.1%**
England	–	1.9%	–	4.6%

Source: Census 2011

6.16   With the Census showing that around 11,500 households in TGSE were overcrowded in 2011, it is notable that this is higher than the 3,860 households identified as being in need of affordable housing in Stage 1 of this assessment, with the latter representing approximately 34% of the total overcrowded households identified in the Census. Higher proportions are shown within Southend-on-Sea and Thurrock which as noted previously both showed significant numbers of overcrowded households in 2011. In addition, there are just over 3,000 families identified as concealed. It may well be that there is a level of overlap between these two classifications. For example, the removal of the concealed family may also mean the household was no longer classified as overcrowded. Equally, it is possible that a number of the concealed families – rather than being potential new young households unable to move out due to affordability reasons – are older households, who have moved back in with their families and are therefore unlikely to be classified as in need.

6.17   Whilst this suggests that there are likely to be households who are living in overcrowded – and potentially unsuitable – conditions who are not captured within the households identified in Figure 6.2, it also highlights a number of areas where it is likely that there will be double counting if trying to draw from all of the variant datasets. It is important to recognise, however, that it is equally likely that a proportion of these households would be able to afford to access suitable housing in the market. These households would not pass the current eligibility tests for affordable housing, and may well not consider themselves as in need.

6.18   In addition, statutorily homeless households are also captured by authorities' respective Housing Registers, and are therefore not separately added to the calculation. These

households are included within the identified numbers of households in need shown in Figure 6.2. It is, however, beneficial to understand homelessness trends in more detail. DCLG publish data on the number of applicants accepted as unintentionally homeless and in priority need, under the homelessness provisions of the 1996 Housing Act. Quarterly data is available, with the last full year of data presented in the following table. This shows that 755 households in TGSE over the past year have been accepted as unintentionally homeless and in priority need.

Figure 6.4:   Statutorily Homeless Households 2014/15

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	**TGSE**
Oct – Dec	104	18	26	21	39	**208**
Jan – Mar	64	13	13	22	62	**174**
Apr – Jun	53	18	20	32	58	**181**
Jul – Sep	62	22	17	28	63	**192**

Source: DCLG, 2015

6.19   Using the data available, it is not possible to explicitly identify statutorily homeless households on the Housing Register, although it is likely that such households have either been housed or placed on the waiting list for affordable housing. It would therefore not be appropriate to elevate the gross current housing need to directly add these households, given the high risk of double-counting, which the PPG cautions against:

"Care should be taken to avoid double-counting, which may be brought about with the same households being identified on more than one transfer list, and to include only those households who cannot afford to access suitable housing in the market"[127]

6.20   Therefore, while the Census and DCLG data provide a useful alternative view of unmet needs in TGSE, the analysis bases the estimate of current need exclusively on authorities' respective Housing Registers. It should be acknowledged that this does not capture all households in need, as some households do not qualify for priority bands for behavioural reasons, for example, while hard to reach groups do not always apply for affordable housing. Overall, given the comparison of the datasets, it is considered to provide a justified and appropriate snapshot of current housing need across the housing market area.

Stage 2 – Affordable Housing Supply

6.21   At the current point in time, there is an estimated amount of affordable housing available to address this backlog. This includes households in need – identified at Step 1.1 – that currently occupy affordable housing, given that these households will vacate an affordable property when they move, enabling the needs of another household to be met. This also includes vacant stock which could be brought back into use, offset by a

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[127] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_024

known amount of stock which will be taken out of the supply. Right to Buy sales have not been taken into account at this stage, given that the PPG only suggests that demolition or replacement schemes that lead to net losses in stock should be identified[128]. A Right to Buy sale would evidently meet the needs of one household, which would not require rehousing in another affordable home. The potential impact of Right to Buy is, however, considered later in this section, alongside the implications of other proposed welfare and housing reforms which – though potentially impacting upon future supply of affordable housing – have not been directly taken into account in this assessment.

6.22 As per the PPG[129], this known supply has been factored in to the calculation through the:

- Identification of affordable housing currently occupied by households in need, drawing upon Housing Register data presented at Step 1.1 (Step 2.1);

- Identification of long-term vacant surplus stock in TGSE based on information provided by the Councils[130] (Step 2.2);

- Quantification of the committed supply of new affordable housing over the next five years, as of May 2015, based on data supplied by the Councils (Step 2.3). This summarises the total number of affordable homes with planning permission in each authority at this time, but does not capture more recent permissions or other sites coming expected to come forward over future years which do not yet have planning consent; and

- Identification of any units planned to be taken out of management through demolition or stock removal. Only one redevelopment scheme has been identified at this stage, with demolition of existing units at Craylands reducing the available supply of affordable housing in Basildon[131] (Step 2.4).

6.23 This stage of the calculation is summarised below.

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[128] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_026

[129] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_029

[130] No data on vacant social rented stock has been provided by Rochford, and therefore it is assumed that there is no vacant stock in the district currently

[131] This project reflects an ongoing estate renewal programme in Basildon, and development of Phase 2 may effectively mitigate this loss. However, at the current point in time, commitments have not been secured

Figure 6.5:   Stage 2 – Affordable Housing Supply

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
2.1 Affordable dwellings occupied by households in need	Transfer tenants identified at Step 1.4	426	145	100	366	348	**1,385**
2.2 Surplus stock	Long-term vacant (ie 6 months plus)	7	6	0	15	10	**38**
2.3 Committed supply of new affordable housing	Commitments for next five years	220	99	161	355	1,297	**2,132**
2.4 Units to be taken out of management	Planned demolitions and stock removal	247	0	0	0	0	**247**
2.5 Total affordable housing stock available	**2.1 + 2.2 + 2.3 - 2.4**	**406**	**250**	**261**	**736**	**1,655**	**3,308**

6.24   Overall, it is evident that the identified supply of affordable housing stock largely consists of committed developments identified by the Councils and stock which is currently occupied by households registered in need, which is assumed to become available as these tenants are rehoused. The committed supply of 2,132 additional affordable homes over the next five years – of which over half is in Thurrock – will also play an important short-term role in meeting needs, which will offset the impacts of planned demolitions at a housing market area level. It is important to note, however, that commitments include both affordable rented and affordable home ownership products, with the latter in particular potentially not benefiting some on the Housing Register if households are unable to access – or not interested in – shared ownership products.

6.25   This additional supply will offset the impacts of planned demolitions at TGSE level, although in Basildon, the committed developments will not offset the planned demolition at Craylands. Stock becoming available as tenants transfer will be the main source of supply over the next five years unless additional development is secured.

Stage 3 – Shortfall in Affordable Housing to Meet Current 'Backlog' Housing Need

6.26   The output from Stage 1 is subtracted from Stage 2 to provide a total backlog need, which is divided by five to translate into an annual figure that would address backlog early in the plan period[132]. This reflects the guidance in the PPG, which states with regard to overall housing provision that:

"Local authorities should aim to deal with any undersupply within the first 5 years of the plan period where possible. Where this cannot be met in the first 5 years, local planning authorities will need to work with neighbouring authorities under the Duty to Co-operate"[133]

6.27   As the calculation assumes that the backlog of need is addressed in full early in the plan period, this will need to be carefully monitored and considered in the context of the likely potential to deliver this level of stock. This reflects delivery mechanisms and the availability of finance and funding.

6.28   It is also important to recognise that this backlog cannot be directly factored in or compared to the outputs of the demographic modelling of household growth presented in sections 3 and 4, given the complex relationship between market and affordable housing. With the majority of households on the waiting list currently occupying some form of market housing, based upon the comparatively limited number classified as statutorily homeless (Figure 6.4), the provision of new affordable housing to clear the backlog can free up market stock in some circumstances.

Figure 6.6:   Stage 3 – Historically Accumulated 'Backlog' Need (Net Annual)

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
3.1 Shortfall in affordable housing to meet current 'backlog' housing need (annual)	(1.3 – 2.5) / 5	103	62	59	77	-191	110

6.29   Over the next five years, the assessment suggests that there will be an annual need for 110 affordable homes over the next five years to clear the backlog that has accumulated historically. This factors in known supply over this period – set out at Stage 2 – but it nevertheless remains clear that further affordable housing provision will be required to

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[132] Assumed 2015 – 2020 given that the data used primarily has a base date of 2015

[133] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-land-availability-assessment/stage-5-final-evidence-base/#paragraph_035

meet needs across much of the area. However, the calculation suggests that committed supply in Thurrock will meet the needs of households in greatest need, clearing the backlog and generating a surplus in affordable housing supply. This surplus will contribute towards meeting net new need – considered below – or meeting the needs of those in lower priority bands.

Calculating Annual Net New Need

6.30 As with market housing, there is an underlying level of demand as new households form and require a property. In the context of the current economy and the housing market, a significant proportion of these newly forming households face challenges in gaining entry to market housing, subsequently driving demand for affordable housing. In addition to new households, existing households also fall into affordable housing need as household circumstances change, resulting in their current housing situation no longer being appropriate and a requirement for affordable housing arising. This needs to be balanced against the supply of affordable housing available in an area to meet these needs. Again, a stepped approach is required, as set out below.

Stage 4 – Future Housing Need

6.31 A projected gross annual household formation rate is input at this stage, drawn from the SNPP 2012 scenario modelled by Edge Analytics[134]. This provides an estimate of gross household formation – rather than the net household growth shown in the 2012 SNHP and other scenarios modelled by Edge Analytics – based on changes in the number of households in specific 5 year age bands, relative to numbers in the age band below 5 years previously. In order to provide a more representative assessment of newly forming households, these estimates are limited to households where the head of household is 44 years or younger. The PPG does not include specific guidance on how newly forming households should be calculated, but this approach aligns with the previous 2007 DCLG Guidance[135]. Again it is important to recognise that this calculation of new gross household formation differs from the household projections presented in sections 3 and 4, which project net household growth.

6.32 The proportion of these households who are unable to afford market housing is estimated based on the application of affordability benchmarks. This is primarily drawn from the income profile of TGSE residents, given that this is an important factor in determining the ability of households to exercise choice and realise their housing aspirations. 2014 CACI data has been used to determine household income levels in each authority. This provides a consistent source of income data across the HMA. In assessing the relative affordability of housing using secondary data sources, it is important to recognise that there is a key challenge in evidencing levels of individual household savings and the relative local benchmarking of newly forming households' incomes. Whilst current Government initiatives such as Help to Buy and the Help to Buy ISA are potentially improving the capacity of new households to purchase property, it is important to recognise that the costs of purchase extend beyond having a deposit and

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[134] The 2012 SNPP scenario is selected as it is identified by Edge Analytics as a reasonable demographic starting point. Variant scenarios considered in sections 3 and 4 suggest different levels of migration which it is assumed are largely driven by factors other than the 'need' to find affordable housing. The data provided by Edge Analytics represents average annual gross household formation rate between 2012 to 2037, limited to households aged 15 to 44

[135] Annex B of the DCLG 2007 SHMA Guidance, though replaced by the PPG, assumes in the identified methodology for calculating gross new household formation that headship (household formation) rates 'plateau' after age 45.

are likely to require a level of savings. However, in many cases, households who do not have sufficient savings to purchase are able to afford to enter the private rental market without support, therefore limiting the extent to which savings are necessary to form an independent household.

6.33   The following graph shows the distribution of household income across the area compared to the national profile using CACI data. This shows the proportion of households within different income bands, and highlights that TGSE has a smaller proportion of households with lower incomes relative to the national profile – although this is notably high in Southend-on-Sea, and relatively low in Rochford – with a consequently higher proportion of households on higher incomes.

Figure 6.7:   Income Profile 2014
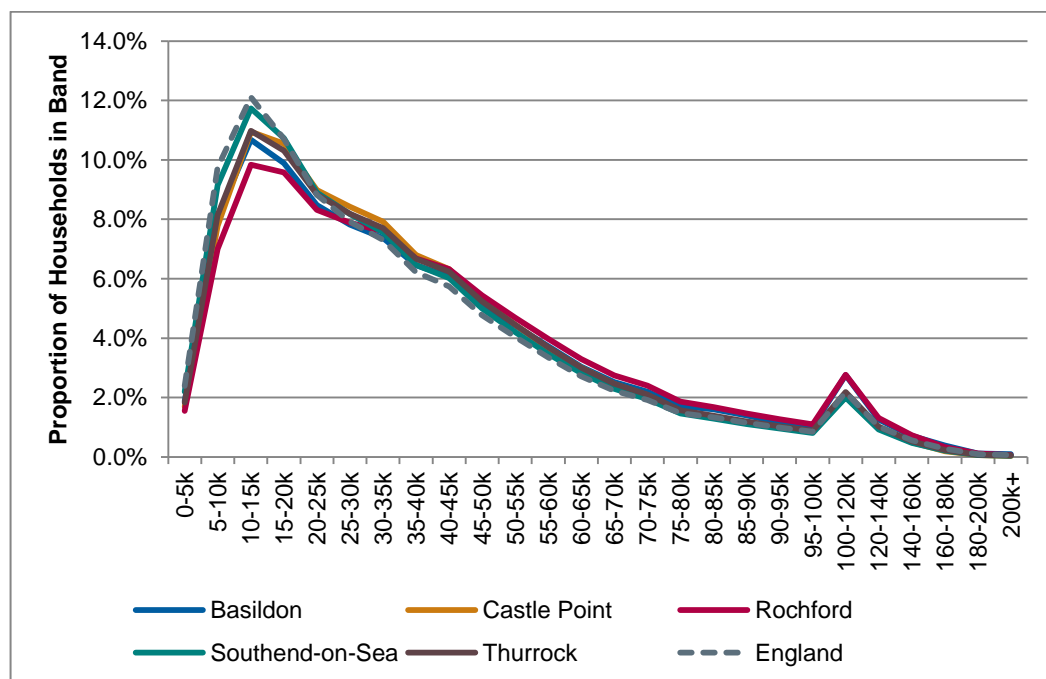
Source: CACI, 2014

6.34   The following table summarises median and lower quartile income in each of the TGSE authorities, again based on CACI data. This confirms that incomes in Southend-on-Sea are lower than elsewhere in TGSE, particularly at the lower quartile, while residents of Rochford are more likely to have higher incomes.

Figure 6.8: Median and Lower Quartile Income 2014

	Lower quartile income	Median income
Basildon	£17,196	£32,147
Castle Point	£17,173	£31,028
Rochford	£18,453	£33,834
Southend-on-Sea	£15,895	£29,459
Thurrock	£16,958	£31,108

Source: CACI, 2014

6.35   CACI data can be utilised to estimate the proportion of households who are unable to afford the cost of housing[136]. This evidently requires a position on the proportion of income spent on housing costs. Research undertaken by the Resolution Foundation – cited by both Shelter and the Joseph Rowntree Foundation – suggests that a household should spend no more than one third of their disposable income on ongoing housing costs:

"Previous research has demonstrated that households spending at or above this threshold are far more likely to struggle to actually make housing payments resulting in arrears and defaults, and are also far more likely to experience material hardship; the effort required to prioritise their housing commitments creates problems elsewhere in their budgets"[137]

6.36   On this basis, it is considered reasonable to assume that a household can afford to spend up to one third of their income on the cost of private rent or mortgage repayments[138]. As such, if a household would be required to spend in excess of one third of their income on these costs, a need for affordable housing would arise.

6.37   The cost of housing is estimated based on published secondary data, with lower quartile rents and house prices used to represent the lower, more accessible end of the housing market. Private rents are drawn from data published by VOA – detailed in section 5 – while house prices are based on sales recorded by Land Registry in the calendar year of 2014.

6.38   The following table shows the annual cost of home ownership and private renting, alongside the implied income required. This is then compared to the income profile of each authority – based on CACI data – to establish the proportion of households who are unable to afford each tenure.

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[136] Rounded to nearest £5,000 to reflect bandings in CACI data

[137] Resolution Foundation (2014) Housing pinched: understanding which households spend the most on housing costs

[138] 5% deposit assumed, with repayment over a 25 year period at a fixed interest rate of 3%

Figure 6.9:   Affordability Benchmarking

		Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock
Purchase	LQ house price 2014	£158,000	£178,000	£202,625	£153,000	£151,000
	Annual cost	£12,205	£13,750	£15,652	£11,819	£11,664
	Income required	£36,615	£41,249	£46,956	£35,456	£34,993
	% unable to afford	**54%**	**63%**	**65%**	**58%**	**56%**
Private rent	Cost of LQ annual rent	£7,800	£7,800	£8,100	£6,600	£7,800
	Income required	£23,400	£23,400	£24,300	£19,800	£23,400
	% unable to afford	**39%**	**40%**	**36%**	**34%**	**40%**

Source: Turley, 2015

6.39   This exercise confirms that households looking to access the private rented sector require a lower income than to purchase, therefore making this tenure more affordable for households across TGSE. There do, however, remain a proportion of households who are unable to afford to privately rent – without spending a higher proportion of their income on rent – and this implies that these households would require affordable housing.

6.40   It is important to note that given the housing market linkages across TGSE – and the varying annual cost of housing – it could be that households unable to afford housing in their authority move elsewhere in the housing market area, where they are able to afford private market housing. It should also be acknowledged that further barriers – such as the need for an initial deposit as noted in the introduction to this section, particularly in home ownership – can restrict the ability of households to access both tenures, particularly where households do not have savings or secure employment. In Thurrock, for example, the recent household survey showed that around 38% of existing households had no savings, while approximately 89% had less than £20,000 in savings.

6.41   It could also be that the income profile of newly forming households differs to the income profile suggested at Figure 6.7, given that this includes older households who may have a lower income but do not have a mortgage to pay, having access to savings or other assets – such as property – which can enhance their spending power in the housing market. This could, however, be offset by younger households who have lower incomes, having only recently entered employment. The relationship between income and housing is complex, but CACI data provides the most comprehensive and standardised approach to considering the ability of households to access housing with limited local data available to apply robust and justified adjustments.

6.42   For this reason, these factors are not directly taken into account in this assessment. Step 4.2 of the calculation presented below assumes that newly forming households who cannot afford the cost of private renting – the most affordable market tenure – in their home authority will require affordable housing in their home authority. This

assumes that those who can afford to privately rent will meet their needs through this tenure, and results in an estimation of the number of newly forming households in need.

6.43 In addition to these newly forming households, a number of households fall into need from other tenures, and require affordable housing on an annual basis. These are labelled as 'existing households falling into need' (Step 4.3). In order to estimate the total number of such households annually, this incorporates the number of lettings to households from other tenures[139] during one year – i.e. those who have had their affordable housing need met during this period – and the number of households who remain on the Housing Register having registered and been assigned a priority band during the same period. This indicates that they did not receive a letting and their need was not met during this time. Consideration of these components in composite results in an annual flow of households who have fallen into affordable housing need from other tenures, irrespective of their receiving a letting or not.

6.44 A range of data has been provided by the Councils in a range of formats – and covering various time periods – and this stage therefore draws upon data from different time periods. Where available, Council data has been used given that the PPG suggests that local databases provide an important source of data[140], and this has been supplemented by other secondary datasets where necessary.

6.45 Data has been interpreted at Step 4.3 as follows:

- **Basildon** – due to a recent change in the Housing Register system, it was considered that the implied high number of households registering is attributable to households re-registering on the new waiting list system. This would not be a reflection of newly arising need, given that the household may have fallen into need some time ago. An alternative method has therefore been applied, with DCLG data[141] used to assess how the size of the waiting list has changed between 2012 – 2013 and 2013 – 2014. In the absence of any further information, the proportion of households receiving a letting from other tenures has been applied to the annual change in the total number of households on the waiting list;

- **Castle Point** – the number of households remaining on the waiting list having registered from other tenures has been calculated by taking an average from the calendar years of 2012, 2013 and 2014. Lettings data cannot be provided by the Council, and therefore data on the number of lettings has been sourced from Local Authority Housing Statistics (LAHS) data returns published by DCLG, based on an average of the number of lettings recorded in the reporting years of 2012/13 and 2013/14. CORE data has been utilised to estimate the proportion of lettings to households originating from other tenures, and this proportion has been applied to the total number of lettings sourced from LAHS data;

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[139] All tenures with exception of living with family or friends, Council or housing association tenant, homeless or no fixed address. These households are already covered under either transfers or newly forming households
[140] http://planningguidance.communities.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_025
[141] DCLG (2014) Table 600 Rents, lettings and tenancies: numbers of households on local authorities' housing waiting lists by district

- **Rochford** – data on both lettings and the waiting list are based on annual (April – March) periods from 2012/13, 2013/14 and 2014/15;

- **Southend-on-Sea** – Housing Register data shows the number of households registering in the calendar years of 2012, 2013 and 2014 from other tenures. However, the previous tenure of lettings is not recorded by the Council. In the absence of this detail, CORE data has been utilised, which suggests – based on an average between the 2012/13 and 2013/14 dataset – that 58% of lettings are made to households from tenures other than social renting or newly forming households. This proportion has therefore been applied to the total number of lettings recorded in the calendar years of 2012, 2013 and 2014; and

- **Thurrock** – lettings data covers the period April – March for 2012/13 and 2013/14, from which an average has been drawn. However, the previous tenure of households receiving lettings is not recorded by the Council. CORE data has therefore been used, which suggests – based on an average between 2012/13 and 2013/14 datasets – that 41% of lettings are made to households from tenures other than social renting or newly forming households. This proportion has therefore been applied to the total number of lettings recorded. The data provided by the Council on the Housing Register does not include any information on the date of registrations, and DCLG data[142] has been used to assess how the size of the waiting list has changed between 2012 – 2013 and 2013 – 2014. In the absence of any further information, it has been assumed that the proportion of households registering from other tenures is the same as that recorded in CORE for lettings (41%), and this rate has therefore been applied to the annual change in the total number of households on the waiting list.

6.46   This stage of the assessment is summarised in the following table.

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[142] DCLG (2014) Table 600 Rents, lettings and tenancies: numbers of households on local authorities' housing waiting lists by district

Figure 6.10: Stage 4 – Future Housing Need (Annual)

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
4.1 New household formation (annual)	Gross annual household formation rate (SNPP 2012)	1,464	584	599	1,511	1,541	**5,699**
4.2 Newly forming households in need (annualised)	Proportion of households unable to afford to purchase or rent in the open market (assuming LQ rent)	39%	40%	36%	34%	40%	**–**
	Number of households unable to afford to purchase or rent in the open market (assuming LQ rent)	571	233	217	511	618	**2,151**
4.3 Existing households falling into need	Households registering from other tenures and either receiving a letting or joining the Housing Register	353	103	125	500	612	**1,691**
4.4 Total newly arising need (gross per year)	**(4.1 x 4.2) + 4.3**	**924**	**336**	**342**	**1,011**	**1,230**	**3,842**

6.47   The assessment suggests that a need for 3,842 affordable homes will arise annually across TGSE, based on newly forming households who are unable to afford the cost of

market housing and existing households who fall into need from other tenures. This suggests a sizeable annual newly arising need for affordable housing, although it is important to note that households falling into need from other tenures are already housed through other tenures, and as such may receive a lower priority for affordable housing, based on the Councils' allocations policies.

Stage 5 – Affordable Housing Supply

6.48   The annual amount of affordable housing anticipated to be made available each year can be estimated, based on the number of lettings which have become available for non-transfer tenants in the past. This approach of using recent historic trends to project forward likely future supply follows the PPG recommended methodology which suggests that the level of future likely affordable housing supply should be calculated based on past trends of social housing re-lets[143].

6.49   Data provided by the Councils on all lettings – from all Housing Register bands – excluding transfers can be used to establish the total affordable housing supply. Where this is not available, however, secondary data – such as CORE and Local Authority Housing Statistics – has been used to identify the number of lettings excluding transfers, and a comparison between datasets to evaluate the most appropriate position has been undertaken. This has also been reviewed by the Councils' housing teams to confirm that the implied number of lettings appears reasonable from their local experience.

6.50   Data has also been provided by housing associations on the number of social lettings – excluding transfers – each year. In order to avoid potential double counting, however, this separate data has not been integrated to the assessment, although it does illustrate that housing association stock is a key component of the annual supply which meets affordable housing needs in TGSE.

6.51   Based on this exercise, the data has been interpreted as follows:

● **Basildon** – average taken between 2012/13 and 2013/14, based on CORE data, which includes both local authority and housing association lettings. Transfers have been removed, based on the recorded previous tenure of households receiving lettings;

● **Castle Point** – an average has been taken between the total number of lettings recorded in the Local Authority Housing Statistics dataset, based on available 2012/13 and 2013/14 data. This shows the number of dwellings which have been let to existing tenants in the local authority, which have been discounted from the total number of lettings to result in the number of lettings excluding transfers;

● **Rochford** – average taken between 2012/13 – 2014/15 (April – March), based on the recorded previous tenure of households receiving lettings;

● **Southend-on-Sea** – three years of lettings data have been provided, to cover lettings made by the Council and housing associations over the calendar years of 2012 to 2014. However, the previous tenure of households has not been recorded. CORE data has therefore been used – based on an average between

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[143] http://planningguidance.communities.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_027

2012/13 and 2013/14 datasets – to estimate that 27% of lettings in the authority have been transfers. This proportion has therefore been integrated into the assessment to establish the number of lettings excluding transfers in Southend-on-Sea; and

- **Thurrock** – similarly, the previous tenure of households receiving lettings has not been recorded by the Council. An average of CORE data suggests that 42% of lettings have been made to transfer tenants currently occupying Council or housing association stock. It is therefore assumed that 58% of lettings are available to households from other tenures, with annual lettings based on an annual average from 2012/13 and 2013/14 (April – March).

6.52   In addition, at Step 5.2, an estimate has been made of the number of intermediate units likely to become available each year. This has been derived from CORE data, which records the number of shared ownership sales between 2012/13 and 2013/14. An annual average has been calculated based on this data, showing that – though relatively small in size – this tenure plays an important role in meeting affordable housing needs.

Figure 6.11: Stage 5 – Affordable Housing Supply (Annual)

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
5.1 Annual supply of social re-lets (annual net)	Lettings excluding transfers[144]	720	101	132	425	616	**1,993**
5.2 Annual supply of intermediate affordable housing available for re-let or re-sale at sub market levels	CORE – shared ownership sales (annual average 2012/13 – 2013/14)	53	0	0	13	16	**82**
5.3 Annual supply of affordable housing	**5.1 + 5.2**	**773**	**101**	**132**	**438**	**632**	**2,075**

6.53   The assessment suggests that there is an annual supply of 2,075 affordable homes across TGSE, with the majority of supply becoming available from annual lettings to non-transfer tenants. It is, however, important to note that Rochford in particular has seen a large number of new affordable housing units completed over recent years,

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[144] Excluded based on recording of previous tenure for household receiving letting or through proportionate application of CORE data

which could have inflated the number of lettings available to meet needs. The annual supply of affordable housing may have been unduly influenced by this recent picture and therefore overestimated, and the number of lettings in the district should continue to be monitored by the Council.

6.54 Intermediate housing also plays a role, particularly in Basildon, where a number of shared ownership sales have been recorded over recent years. The role of this tenure in meeting needs in the future is considered further later in this section.

Stage 6 – Annual Net New Need

6.55 The output from Stage 5 is subtracted from Stage 4 to produce an estimate of the number of households likely to have unmet needs for affordable housing, which – unless sufficient new stock is available to meet annual calculated needs in full – will add to the backlog position annually.

Figure 6.12: Stage 6 – Annual Net New Need

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
6.1 Net new need (annual)	4.4 – 5.3	**152**	**236**	**210**	**573**	**597**	**1,767**

6.56 Across TGSE, the available annual supply of affordable housing is insufficient to meet identified newly arising needs. This results in an annual unmet need for affordable housing arising, requiring an additional 1,767 affordable homes per annum. Collectively, around two thirds of this need is concentrated in Southend-on-Sea and Thurrock, with a lower level of need in Basildon. With regards to the comparatively low of level of need in Basildon it is recognised that this is likely, at least in part, to reflect the more sizeable affordable housing supply in the borough, although this continues to fall short of identified needs based upon Figure 6.11.

Total Affordable Housing Need

6.57 The final element of the calculation is the identification of the total affordable housing need on a net annual basis, which is calculated by adding the two components introduced above together to derive the net annual need.

6.58 Recognising the importance of seeking to address the backlog within a reasonable timeframe – and following the guidance in the PPG – the analysis in this section assumes that the backlog is cleared within a five year time horizon. On this basis, a five year affordable need figure is presented, alongside a longer term net affordable need figure.

6.59   This shows an estimated extrapolation of projected need once the backlog has been
        cleared, although it is important to note that this is based on information at a fixed point
        in time and does not take account of future changes to the housing market. The longer
        term net need over the plan period therefore assumes that future need is simply
        associated with the annual net new need for the remainder of the plan period.

Figure 6.13: Stage 7 – Total Affordable Housing Need (Net Annual)

Step	Source	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
7.1 Shortfall in affordable housing to meet current 'backlog' housing need (annual)	3.1	103	62	59	77	-191	**110**
7.2 Net new need (annual)	6.1	152	236	210	573	597	**1,767**
7.3 Net annual affordable housing need	**3.1 + 6.1**	**254**	**298**	**268**	**650**	**406**	**1,877**

6.60   The calculation suggests that there is a total net need for **1,877 affordable homes in
        TGSE annually over the next five years**, in order to clear the backlog and meet newly
        arising need. Once the backlog is cleared, only newly arising needs will need to be met,
        requiring **1,767 affordable homes annually**.

6.61   This is distributed throughout TGSE, with higher levels of affordable housing need in
        Southend-on-Sea and Thurrock in particular. Affordable housing need in Thurrock,
        however, is calculated to be largely generated by newly forming households and
        households falling into need from other tenures, given that the committed supply of
        affordable housing in the authority will clear the backlog of households currently in
        greatest need on the Housing Register.

6.62   A further exercise can compare the levels of affordable housing need against the
        number of households in each authority. This provides an indication of the scale of need
        in each authority, although – given that this incorporates data from the 2011 Census – it
        is important to note that the number of households is likely to have increased with the
        population since the Census was completed.

Figure 6.14: Affordable Housing Need as Proportion of Households (2011)

	Total households 2011	Net annual affordable housing need	% of households in need
Basildon	72,746	254	0.3%
Castle Point	36,440	298	0.8%
Rochford	33,564	268	0.8%
Southend-on-Sea	74,678	650	0.9%
Thurrock	62,353	406	0.7%
TGSE	**279,781**	**1,877**	**0.7%**

Source: Turley, 2015; Census, 2011

Size of Affordable Housing Required

6.63   In order to estimate relative pressure on property of different sizes, the affordable housing needs assessment can be broken down by size. This analysis will help to further understand how policy should be structured to assist in alleviating the current backlog of housing need, while providing a profile of affordable housing which responds to future need over the short term.

6.64   This follows the guidance in the PPG:

"Plan makers should look at the house size in the current stock and assess whether these match current and future needs"[145]

6.65   In order to arrive at this estimate, the assessment has been replicated below, with analysis broken down by dwelling size using the number of bedrooms. This is presented for TGSE as a whole, with local authority summaries included at Appendix 7.

6.66   It is important to note, however, that the absence of detailed household typologies from the recently released 2012-based household projections at the time of the assessment creates challenges in understanding the types of households likely to form over the plan period, and the number of bedrooms required. DCLG has since provided further detail on household typologies[146], allowing a more detailed understanding of size requirements, although this has not been factored into this assessment. In the absence of this detail, data from the 2011 Census breaking down social renting households by number of bedrooms has been applied. This therefore assumes that newly forming households in need will have a size requirement that reflects the existing profile.

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[145] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_028
[146] The DCLG published the Stage 2 household data sets for the 2012 SNHP in December 2015. The modelling undertaken to inform this SHMA preceded this release.

Figure 6.15: Affordable Housing Need by Size – TGSE

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 1 – Current Housing Need						
1.1	Existing affordable housing tenants in need	643	493	192	57	**1,385**
1.2	Other groups on Housing Register	1,280	809	327	59	**2,475**
1.3	**Total current housing need (gross) (1.1 + 1.2)**	**1,923**	**1,301**	**519**	**116**	**3,860**
Stage 2 – Affordable Housing Supply						
2.1	Affordable dwellings occupied by households in need	643	493	192	57	**1,385**
2.2	Surplus stock	20	7	11	0	**38**
2.3	Committed supply of new affordable housing	394	795	779	164	**2,132**
2.4	Units to be taken out of management	69	70	96	13	**247**
2.5	**Total affordable housing stock available (2.1 + 2.2 + 2.3 – 2.4)**	**988**	**1,225**	**887**	**208**	**3,308**
Stage 3 – Historically Accumulated 'Backlog' Need (net annual)						
3.1	**Shortfall in affordable housing to meet current 'backlog' need (1.5 – 2.5 / 5)**	**187**	**15**	**-73**	**-18**	**110**
	%	169%	14%	-67%	-17%	–

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 4 – Future Housing Need (annual)[147]						
4.2	Number of newly forming households unable to rent in the open market	775	561	731	84	**2,151**
4.3	Existing households falling into need	879	392	382	38	**1,691**
4.4	**Total newly arising need (4.2 + 4.3)**	**1,654**	**953**	**1,113**	**122**	**3,842**
Stage 5 – Affordable Housing Supply						
5.1	Lettings excluding transfers	1,088	437	431	37	**1,993**
5.2	Annual supply of shared ownership units available for sub-market sale	4	17	39	22	**82**
5.3	**Annual supply of affordable housing (5.2 + 5.2)**	**1,092**	**454**	**470**	**59**	**2,075**
Stage 6 – Annual Net New Need						
6.1	**Annual net new need (4.4 – 5.3)**	**562**	**499**	**643**	**63**	**1,767**
	%	32%	28%	36%	4%	–
Stage 7 – Total Affordable Housing Need (net annual)						
7.1	Shortfall in affordable housing to meet current 'backlog' need (3.1)	187	15	-73	-18	**110**
7.2	Annual net new need (6.1)	562	499	643	63	**1,767**
7.3	**Net annual affordable housing need (3.1 + 6.1)**	**749**	**514**	**569**	**45**	**1,877**
	%	40%	27%	30%	2%	–

[147] Step 4.1 is not available by household size, with the size profile of existing social renting households in each authority at 2011 Census applied to newly forming households in need at Step 4.2

6.67   The assessment indicates that there is a need for affordable homes of all sizes across TGSE, although there is a particular requirement for smaller stock. There is a smaller need for larger property, and indeed the assessment suggests that there is an oversupply of 3 and 4 bedroom stock in the next five years. This is largely driven by the profile of stock committed for development in Thurrock, which includes a large number of larger affordable homes. Many of those households identified in the backlog require smaller affordable housing.

6.68   In terms of future need, however, the largest absolute need relates to 3 bedroom properties, with the relatively limited annual supply of property of this size increasing the level of need. There is a sizeable annual future need for one bedroom properties, but this comfortably represents the main source of annual supply across TGSE.

Role of Intermediate Products

6.69   Intermediate housing products can play a role in bridging the gap between social renting and owner occupation. As a result, this type of housing tenure can provide an important step on the housing ladder, which particularly appeals to first-time buyers and households with lower incomes. The analysis in section 8 shows that 0.5% of households in TGSE are in shared ownership tenures, suggesting that the tenure plays a small but important role in meeting housing needs, particularly in Basildon. Other intermediate products such as affordable rent can also provide housing options at sub-market levels, although it is notable that they are not included within the definition of intermediate housing in the NPPF:

"Intermediate housing is homes for sale and rent provided at a cost above social rent, but below market levels subject to the criteria in the Affordable Housing definition above. These can include shared equity (shared ownership and equity loans), other low cost homes for sale and intermediate rent, but not affordable rented housing"[148]

6.70   This section therefore initially considers the potential role of intermediate products in meeting affordable housing needs in TGSE. Whilst noting that affordable rent is not included within the definition of intermediate housing, the extent to which providing properties for rent at sub-market levels can meet affordable housing needs is also considered.

6.71   Drawing upon the income tests applied at Step 4.2 of the calculation, the proportion of households who are unable to afford market housing but can afford each intermediate product can be established. The income required to access different intermediate options continues to be based on the assumption that a household spends no more than a third of their income on housing costs. A household is assumed to obtain a mortgage to cover the cost of the purchased share, with a 5% deposit on a mortgage which is repaid over 25 years with a fixed 3% interest rate.

6.72   The lower quartile house price continues to be utilised as a threshold for consistency with the affordable housing needs assessment presented earlier, although it is important to note that this is based on new build sales only. This recognises that current intermediate products are only available for new build homes, and this assumed cost

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[148] DCLG (2012) National Planning Policy Framework (p50, Annex 2)

therefore differs from the cost of open market housing, which also includes resale properties.

Shared Ownership

6.73   The traditional shared ownership model allows purchasers who meet low income criteria to typically buy between 25 – 75% of the equity, paying rent on the rest. The following table estimates the income required to purchase 40% of a shared ownership property, based on an assumed annual rent of 2.5% per annum and the cost of mortgage repayment on the owned share. The cost of open market rent is also presented for context, as the most affordable market option.

Figure 6.16: Proportion of Households Unable to Afford Shared Ownership

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock
Open market rent					
Annual cost	£7,800	£7,800	£8,100	£6,600	£7,800
Income required	£23,400	£23,400	£24,300	£19,800	£23,400
% unable to afford	39%	40%	36%	34%	40%
40% shared ownership					
Annual cost	£7,573	£8,778	£12,851	£9,409	£6,655
Income required	£22,720	£26,334	£38,554	£28,228	£19,966
% unable to afford	39%	40%	58%	51%	31%
Residual[149]	**0%**	**0%**	**0%**	**0%**	**9%**

Source: Turley, 2015

6.74   The assessment indicates that the income required to purchase 40% of a shared ownership property – and pay an annual rent – is broadly similar to the income required to privately rent, particularly in Basildon and Castle Point. As such, the proportion of households who are unable to afford each product is similar[150], and the number of households unable to privately rent but able to access shared ownership is small or negligible.

6.75   In Rochford and Southend-on-Sea, a higher income is required to access shared ownership, and therefore open market rent remains the most accessible tenure for newly forming households. In Thurrock, however, 9% of households are unable to afford private rent but can afford 40% shared ownership. Applying this proportion to the gross annual number of newly forming households in Thurrock (Step 4.1) suggests that 136 households in the authority could meet their needs through shared ownership. This would represent 11% of the total newly arising need in the authority (Step 4.4), and would lower the need for affordable housing in Thurrock and across wider TGSE.

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[149] Unable to afford private rent, but able to afford shared ownership product

[150] Proportion of households unable to afford calculated based on rounding 'income required' to nearest £5,000 to align with available data

6.76 Shared ownership can, therefore, play a role in meeting needs across TGSE, particularly in Thurrock. Furthermore, given that a similar income is required to privately rent or purchase a 40% shared ownership product in Basildon and Castle Point, households may be free to exercise choice between these tenures. Some households may prefer to rent for flexibility reasons, for example, but others may prefer the certainty provided by shared ownership. It is also recognised that other factors can influence the ability of households to meet their needs through shared ownership, including the viability of this tenure in low value locations and the need to obtain a mortgage and deposit.

Help to Buy Equity Loan

6.77 A Help to Buy equity loan allows purchasers to obtain a mortgage for 75% of the purchase price of a new build home, with a 5% cash deposit and a 20% equity loan from the Government. No loan fees are payable for the first five years, but a fee of at least 1.75% is applied from the sixth year, tied to 1% above the Retail Prices Index[151]. This loan needs to be repaid within 25 years – or sooner if the property is sold – but enables people to buy a property that is bigger, better or newer than what they could already afford, stimulating the new build construction market but remaining unaffordable to those on low incomes or those with insufficient savings.

6.78 The annual cost of purchase through Help to Buy equity loan is tied to the cost of mortgage repayments, although an annual loan fee of at least 1.75% is repayable after five years. The Government share of the purchase price is also expected to be repaid within 25 years, although these additional costs are not directly taken into account in this assessment, given that this is a longer term repayment which would not affect new households accessing housing through this tenure.

6.79 The following table demonstrates the income required to access a Help to Buy equity loan in each authority, again benchmarked against the cost of privately renting at the lower quartile.

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[151] https://www.gov.uk/affordable-home-ownership-schemes/help-to-buy-equity-loans

Figure 6.17: Proportion of Households Unable to Afford Help to Buy Equity Loan

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock
Open market rent					
Annual cost	£7,800	£7,800	£8,100	£6,600	£7,800
Income required	£23,400	£23,400	£24,300	£19,800	£23,400
% unable to afford	39%	40%	36%	34%	40%
Help to Buy equity loan					
Annual cost	£9,559	£11,080	£16,221	£11,877	£8,401
Income required	£28,678	£33,239	£48,664	£35,630	£25,202
% unable to afford	47%	56%	70%	58%	40%
Residual[152]	**0%**	**0%**	**0%**	**0%**	**0%**

Source: Turley, 2015

6.80   The assessment indicates that a higher income would be required to access a Help to Buy equity loan in each of the TGSE authorities. This implies that households who are unable to afford market rent in TGSE (Step 4.1) are unlikely to be able to afford the cost of Help to Buy equity loan, limiting the extent to which this product will meet the identified need for affordable housing in the area.

Starter Homes

6.81   In February 2015, the Government announced a new initiative to provide starter homes for first time buyers under 40 years of age[153]. Starter homes will be offered to younger people at a minimum 20% discount to the market price, although the discount price should not be significantly more than the average price paid for a first time buyer. This means that discounted prices outside of London should be no more than £250,000[154].

6.82   Nationally, there is an ambition to build 200,000 starter homes across England by 2020, with a £26 million fund recently launched to accelerate provision[155]. The emerging Housing and Planning Bill sets out a duty for local authorities in England to promote the supply of starter homes.

6.83   The provision of starter homes at sub-market levels falls within the definition of an intermediate product set out in the NPPF. Furthermore, though not currently defined as affordable housing, recent announcements by the Government – and the recent consultation on national planning policy – have emphasised that the initiative is intended to increase affordable home ownership, and indeed some sites – particularly commercial and industrial land that is either unusable or surplus – will be freed from providing affordable housing if starter homes are provided instead.

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[152]   Unable to afford private rent, but able to afford shared ownership product

[153]   HMGovernment (February 2015) Young first-time buyers can register online for 100,000 cut-price homes

[154]   DCLG (2015) Starter Homes exception sites

[155]   DCLG (2015) Greg Clark gives starter home boost to first-time buyers

6.84 It is difficult to estimate the precise impact of an increased supply of starter homes on affordable housing need in TGSE, particularly given that national policies have yet to be fully enacted. The provision of starter homes at a discount in TGSE would, however, evidently lower the cost of purchase for younger households, providing additional new housing which is more affordable to those able to buy.

6.85 The minimum discount of 20% can be applied to the lower quartile new build house price in 2014 to estimate the income required to afford a starter home. This retains consistent assumptions about mortgage arrangements and repayments, and assumes that a household takes out a mortgage to cover the cost of purchase. This is summarised in the following table.

Figure 6.18: Income Required to Access Starter Homes

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock
Cost of purchase	£132,000	£152,997	£223,996	£164,000	£116,000
Annual cost	£10,196	£11,818	£17,303	£12,668	£8,961
Income required	£30,589	£35,455	£51,909	£38,005	£26,882
Unable to afford	47%	56%	70%	65%	44%
Open market rent	39%	40%	36%	34%	40%

Source: Turley, 2015

6.86 Across all authorities, private rent remains a more affordable option for households than starter homes, due to the greater annual cost associated with starter homes. As the assessment in this section assumes that a household unable to afford to privately rent requires affordable housing, starter homes are therefore unlikely to directly contribute towards meeting the identified levels of affordable housing need in TGSE.

6.87 Starter homes are more likely to play a role in providing an alternative option for those currently renting in the private sector, although it is acknowledged that the cost of purchase could exceed the lower quartile – up to the maximum price of £250,000 – and/or be purchased through intermediate products such as Help to Buy which could impact upon the findings of the benchmarking exercise summarised above. There remains a degree of uncertainty regarding the future provision of starter homes, and the extent to which this type of product can meet needs should continue to be monitored by the Councils.

Affordable Rent

6.88 Although not included in the definition of intermediate housing, affordable rent products can lower the levels of rent payable and consequently lower the income threshold for accessing housing, compared to the private sector.

6.89 The NPPF provides a definition of affordable rented housing:

"Affordable rented housing is let by local authorities or private registered providers of social housing to households who are eligible for social rented housing. Affordable Rent

is subject to rent controls that require a rent of not more than 80% of the local market rent (including service charges, where applicable)."

6.90   It is recognised that market rents for new build homes are likely to be higher than rental values across all stock. However, there are limitations as to the availability of data for new build rental properties, and the scale of transactions could lead to the data being distorted. In order to assess income thresholds for accessing affordable rent, the analysis has applied the 80% rent to the lower quartile private rented cost derived from VOA data, with the incomes required consistent with those shown in Figure 6.6. The following table considers the income required to access affordable rent at varying levels (60%, 70% and 80% of market rent). Expectedly, increasingly reducing market rent lowers the income required across all authorities.

Figure 6.19: Affordable Rent – Income Required

	Open market rent	80% market rent	70% market rent	60% market rent
Basildon	**£23,400**	£18,720	£16,380	£14,040
Castle Point	**£23,400**	£18,720	£16,380	£14,040
Rochford	**£24,300**	£19,440	£17,010	£14,580
Southend-on-Sea	**£19,800**	£15,840	£13,860	£11,880
Thurrock	**£23,400**	£18,720	£16,380	£14,040

Source: Turley, 2015

6.91   Comparing the above thresholds with the income profiles for each authority, the following table shows the proportion of households who are unable to access affordable rent at different levels. Again, the residual can be calculated to show the proportion of all households who are unable to afford private rent but can afford the most accessible affordable rent (60%).

Figure 6.20: Proportion of Households Unable to Access Affordable Rent

	Open market rent	80% market rent	70% market rent	60% market rent	**Residual[156]**
Basildon	39%	31%	21%	21%	**18%**
Castle Point	40%	31%	20%	20%	**20%**
Rochford	36%	28%	18%	18%	**18%**
Southend-on-Sea	34%	23%	23%	11%	**22%**
Thurrock	40%	31%	21%	21%	**19%**

Source: Turley, 2015

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[156] Unable to afford private rent, but able to afford 60% market rent

6.92 This suggests that a subset of those households who are unable to afford private rent have an income which could afford to access affordable rent products in TGSE. Applying these proportions to the gross number of newly forming households (Step 4.1) – as in the table below – shows that 29% of newly arising need for affordable housing in TGSE could be met through by affordable rent at 60%, with implied smaller levels of need met through higher levels of market rent.

Figure 6.21: Newly Arising Need Met by Affordable Rent

	Households unable to afford private rent (Step 4.2)	Households able to access affordable rent (60%)	% of newly arising need met
Basildon	571	233	29%
Castle Point	233	114	34%
Rochford	217	107	31%
Southend-on-Sea	511	340	34%
Thurrock	618	295	24%
TGSE	**2,151**	**1,125**	**29%**

Source: Turley, 2015

6.93 Affordable rent can therefore play a particularly significant role in Castle Point and Southend-on-Sea, although it is evidently reliant upon the supply of affordable rent properties becoming available to meet this need.

6.94 It is also important to recognise that some households in current need of affordable housing – or those falling into need from other tenures – may also be able to afford intermediate or affordable rent products, further meeting the need identified in the assessment. It is not, however, possible to estimate the extent to which these needs can be met.

Summary

6.95 Drawing together the analysis of the relative affordability of different products in TGSE, the following graph shows the proportion of households unable to afford various products in each authority. A hatched block shows instances where the income thresholds required to access more than one product are closely aligned.

Figure 6.22: Proportion of Households Unable to Afford Housing Products
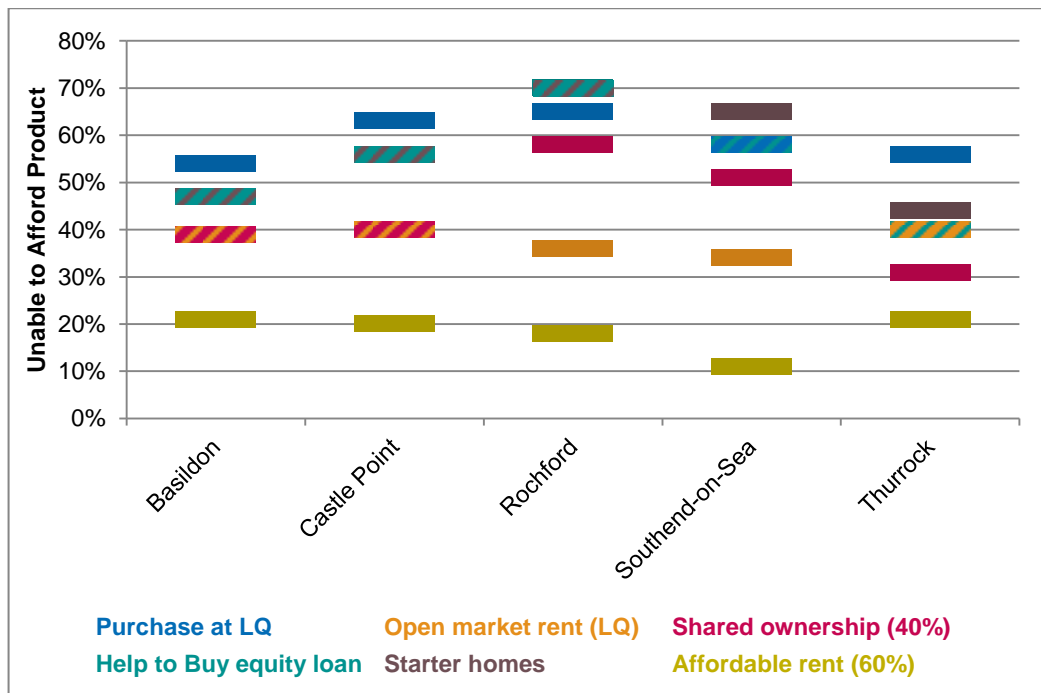
Source: Turley, 2015

6.96   This shows that affordable rent at 60% of market levels is consistently the most affordable tenure, given that it is only unaffordable to a comparatively small number of households in each authority. Open market rent is typically the next most affordable product, with the exception of Thurrock, where shared ownership represents a relatively affordable tenure for households. Above this threshold, the assessment suggests that other intermediate products are therefore more likely to represent alternative options for households who can already afford to privately rent, rather than playing a role in meeting the needs of households who are unable to afford this tenure.

6.97   This assessment provides evidence on the relative accessibility of different intermediate tenures in each TGSE authority, and it is anticipated that this will inform the development of tenure mix policies, which remain at the discretion of respective authorities and also take account of other factors, including viability.

Role of the Private Rented Sector

6.98   The private rented sector has seen significant growth both nationally and within TGSE, with many households likely to have been meeting their affordable housing needs through this tenure as it has grown in scale. It is, however, important to note that the private rented sector explicitly falls outside of the definition of affordable housing set out in the NPPF.

6.99   The extent to which households with affordable housing needs occupy housing in the private rented sector can be estimated, utilising the most recent data release from the Department for Work and Pensions with a base date of February 2015. This shows the number of local housing allowance (LHA) recipients residing in households within the

private rented sector in each of the five TGSE authorities, with England also presented for comparison.

Figure 6.23: Rented Tenure of LHA Claimants

	Social rented	Private rented	Total LHA claimants
Basildon	76.5%	23.5%	13,902
Castle Point	35.6%	64.4%	4,425
Rochford	58.8%	41.2%	3,369
Southend-on-Sea	41.8%	58.2%	16,763
Thurrock	64.1%	35.9%	12,114
TGSE	**57.3%**	**42.7%**	**50,573**
England	66.3%	33.7%	4,168,982

Source: DWP, 2015

6.100 Overall, a higher proportion of LHA claimants in TGSE live in the private rented sector compared to the national profile, with this tenure accounting for around 43% of all claimants. However, there is significant variation within this geography, with a greater role for social rent in Basildon and a notably high reliance on the private rented sector to meet the needs of claimants in Castle Point and Southend-on-Sea.

6.101 It is beneficial to estimate the proportion of private renters who are claiming local housing allowance. This relates the total number of residents privately renting from the 2011 Census with the total number of LHA claimants in the private rented sector, from the DWP data presented above.

Figure 6.24: Proportion of Private Renting Residents Claiming LHA

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
Total number of residents privately renting	17,221	9,595	6,982	37,217	22,175	93,190
Total LHA claimants in private rented sector	3,271	2,850	1,388	9,750	4,350	21,609
Proportion of private rented residents claiming LHA	**19.0%**	**29.7%**	**19.9%**	**26.2%**	**19.6%**	**23.2%**

Source: Census 2011; DWP, 2015

6.102 LHA claimants form a significant proportion of people privately renting in TGSE, with just under a quarter of all privately renting residents claiming LHA. Again, this is notably

higher for Castle Point and Southend-on-Sea, continuing to highlight the role of this tenure in meeting needs. All authorities surpass the England rate of 15.9%.

6.103 A final stage can estimate the number of lettings made each year to tenants claiming LHA. The turnover of housing stock can be estimated from English Housing Survey returns, which – for 2012/13 – suggests that approximately 11% of private rented households are new lettings which either originate from other tenures or are newly formed[157]. This benchmark removes transfers between private rented stock, allowing an estimate to be made of the number of new lettings per annum in TGSE. This can be compared against the number of households privately renting in TGSE from the 2011 Census – notably differing from that presented above, which was resident based – to determine the number of new lettings arising from LHA claimants. It is important to note, however, that this figure does not take account of multiple LHA claimants sharing households, and this therefore represents an estimated position.

Figure 6.25: Annual Private Lettings to Tenants Claiming LHA

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
Total private rented households	7,448	3,968	2,844	16,439	8,772	39,471
New lettings per annum (11%)	819	436	313	1,808	965	4,342
Proportion of LHA claimants in PRS	19.0%	29.7%	19.9%	26.2%	19.6%	–
Number of private rented households claiming LHA	**156**	**130**	**62**	**474**	**189**	**1,010**

Source: Census 2011; English Housing Survey, 2013; Turley, 2015

6.104 This assessment estimates that the private rented sector meets the affordable needs of around 1,000 households per year across TGSE, with the tenure playing a significant role in Southend-on-Sea in particular. This suggests that the private rented sector has and is likely to continue to play a substantial role in meeting the affordable housing needs of households in TGSE. Given the increasing size of this tenure, it is likely that this role has grown over recent years. Importantly, however, this tenure falls outside of the NPPF definition of affordable housing, and future policy factors – such as the Government's benefit caps, considered in more detail below – may impact on the contribution of the sector to meeting needs. This means that it should not be directly assumed to reduce the need for affordable housing as calculated earlier in this section.

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[157] English Housing Survey Headline Report 2012/13 – Table 5 (Previous tenure by current tenure, 2012-13) indicates that, nationally, 448,000 private rented households were previously in another tenure. Over the same period, there were 3,956,000 private rented households (Table 1 – Demographic and economic characteristics by tenure, 2012-13) . This suggests that approximately 11%of private rented households are new lettings

Impact of Future Reforms

6.105 Over recent years, there has been a sustained programme of welfare reform, which the government set out their intentions to continue in the Summer Budget 2015[158]. The passage of the Housing and Planning Bill through Parliament will also introduce changes which could impact upon affordable housing need. The latest planned changes are summarised below:

- The **benefit cap** will be lowered so that an out of work family can claim no more than £20,000 in benefits – or £23,000 in London – although those who find a job will continue to be exempt from the cap. Pensioners also will not be subject to this limit;

- Social housing tenants with household incomes of £30,000 and above in England – or over £40,000 in London – will be required to pay **market or near market rent** for their accommodation, with this subsidy either repaid to the Exchequer or reinvested in new housing;

- **Lifetime tenancies** in the social housing sector will be reviewed to ensure that the best use is made of the existing stock;

- **Automatic housing support entitlement will be withdrawn** for new Universal Credit claims from 18-21 year olds who are out of work, with a new Youth Obligation support regime introduced to encourage people of this age into sustainable employment;

- Working age benefits – including local housing allowance (LHA) – will be **frozen for 4 years** from 2016/17;

- Social housing rents in England will be **reduced by 1% annually for 4 years**, in response to a three year period since 2010/11 when average social rents have increased by 20%;

- **Universal Credit** will continue to expand to over 500 jobcentres by the end of 2015, which will consolidate six benefits – including housing benefit – into one payment;

- The Housing and Planning Bill will seek to support home ownership by giving **housing association tenants a right to buy their home**, extending the rights received by local authority tenants;

- Local authorities will be expected to **dispose of high-value vacant council houses**, releasing funds to extent the Right to Buy and build new affordable homes; and

- Duty for local authorities to promote **starter homes** to be introduced, with power given to the Secretary of State to issue regulations requiring the delivery of starter homes on all reasonably sized developments.

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[158] HM Treasury (2015) Summer Budget 2015

Earlier Reforms

6.106 Elements of the latest reforms represent continuations of changes made during the previous government, with the benefit cap introduced from July 2013 at an initial threshold of £26,000. Housing benefit is one of the benefits subject to the cap, and is seen as a mechanism through which it can be implemented. Households lose some of their housing benefit if total benefits received surpass the designated limit, and this is likely to have the greatest impact on larger families, who require larger homes which typically demand higher rents. A lowering of the benefit cap as proposed could further limit the amount of housing benefit received, although the amount of other benefits received could also change in the future.

6.107 A government review of the impact of the benefit cap after its first year of operation highlights that its impact has been limited, with the greatest effect seeing capped claimants moving into or towards employment[159]. Some households, however, have faced barriers in accessing employment, including childcare issues and a shortage of language skills or qualifications. It is notable that the majority of claimants have not built up rent arrears, with very few moving house due to the benefit cap. Instead, households have adjusted through other means, such as finding employment or adjusting budgets.

6.108 The government also introduced the spare room subsidy from April 2013, where the benefit received would be reduced if a household was deemed to have a spare bedroom in their council or housing association home. The measure restricts housing benefit to a rate that allows for one bedroom for each person or couple living as part of a household, with the following exceptions:

- Two children under 16 of the same gender are expected to share a bedroom, thereby reducing the number of bedrooms that the household is eligible for;

- Two children under 10 are expected to share a bedroom regardless of gender;

- Disabled tenants or partners requiring a non-resident overnight carer will be allowed an extra bedroom;

- Approved foster carers will be allowed an additional room if they have fostered a child, or became an approved foster carer in the last 12 months; and

- Adult children in the Armed Forces will be treated as continuing to live at home when deployed on operations.

6.109 Where claimants have one or more spare bedrooms in their home, the amount of benefit they receive will be reduced by a fixed percentage of the eligible rent. The government has stated that this is set at 14% for one extra bedroom, and 25% for two or more extra bedrooms.

6.110 An assessment[160] prepared by the government estimates that around 3,200 households in TGSE have been affected by these measures, representing around 6.5% of all housing benefit claimants in the area. A larger proportion of claimants in Basildon and Thurrock are affected by the subsidy, however, as summarised in the following table.

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[159] DWP (2014) The benefit cap: a review of the first year
[160] DCLG (2015) Housing Benefit caseload statistics: data to May 2015

Figure 6.26: Households with Spare Room Subsidy Reduction – year to May 2015

	All housing benefit claimants	Spare room subsidy applied	% of claimants	Average reduction
Basildon	13,624	1,341	9.8%	£17
Castle Point	4,459	163	3.7%	£17
Rochford	3,371	125	3.7%	£18
Southend-on-Sea	16,622	642	3.9%	£18
Thurrock	11,647	938	8.1%	£17
TGSE	**49,723**	**3,209**	**6.5%**	**–**
Great Britain	4,846,207	456,959	9.4%	£15

Source: DCLG, 2015

Implications

6.111 The changes introduced to the welfare system over recent years – alongside future planned reforms – could impact upon the calculated need for affordable housing presented in this chapter in terms of both needs and the availability of supply.

6.112 The extension of the Right to Buy to housing association properties could reduce the supply of social housing available to meet needs on an annual basis, whilst the sale of higher value council and housing association properties could also reduce available supply. Whilst the reforms expect this to be replaced, there are established concerns regarding the extent to which stock can be replaced by new housing association properties. The sale of higher value property could also influence the spatial distribution of social housing across TGSE.

6.113 This could be partially offset by the discontinuation of lifetime tenancies, which would be likely to increase the amount of stock becoming available on an annual basis as properties are vacated. This would, however, be likely to increase the number of transfers and relets. Therefore, when excluding relets – as at Step 5.1 of the calculation presented in this chapter – the number of lettings becoming available could remain relatively steady, albeit with some losses associated with the Right to Buy and sale of higher value stock if these are not directly replaced.

6.114 It is difficult to establish the impact of removing housing benefit for 18 to 21 year olds, particularly given that younger households can expect to retain their benefits if they partake in the Youth Obligation support scheme. Nevertheless, the removal of automatic benefits for people of this age could reduce the level of need associated with this group, although there are likely to remain more vulnerable households in need.

6.115 The reduction in the benefit cap will reduce the benefits received by out of work families, with an aim to encourage work and thereby increase incomes. This could enable households to access market housing, although this could be challenging in less

affordable areas, where households moving from social to market housing could potentially be forced to move elsewhere.

6.116 The spare room subsidy could also reduce the amount of housing benefit received, with a view to improving the efficiency of stock. With research by the BBC showing that only a small proportion of affected social housing tenants move[161], however, many households could simply absorb the additional costs associated with under-occupying property, thereby potentially reducing their available income.

6.117 The commitment to reduce social housing rents can potentially offset some of the impacts suggested above, due to a reduction in the cost of housing, but this could also reduce Council and housing association revenue and limit their ability to deliver new social housing stock.

6.118 Furthermore, the introduction of market or near-market rents for higher income households in social housing will increase the cost of housing for these households, and assumes that their income can support higher rental levels. While this could act as a bridge between social and market housing – and allow a smoother transition to market housing for households on higher incomes, potentially freeing up social stock for those with lower incomes – challenges could, again, be presented in areas of higher value.

6.119 Overall, it is clear that the ongoing programme of welfare reforms could significantly impact on the level of affordable housing need in TGSE, and the available supply of social housing in the area. This could directly impact upon the assessed balance between supply and demand and the implied level of backlog and particularly future need. The impacts of these reforms should therefore be monitored by the Councils as they develop housing policy, with evidence of a substantial change potentially justifying a new calculation of affordable housing need.

Summary

6.120 This section has followed the guidance in the PPG to calculate the need for affordable housing within each local authority in TGSE, and the housing market area as a whole. A consistent methodology has been applied, drawing upon evidence supplied by the Councils and secondary data identified throughout. There is, however, acknowledged variation in social housing policy across TGSE, and these differences should be taken into account in developing affordable housing policy. The assessment is also based on data at the current point in time and recent trends, and future changes – such as those associated with welfare reforms – could impact upon the need and supply for affordable housing in the area.

6.121 The calculation suggests that there is a total need for **1,877 affordable homes annually in TGSE over the next five years**. This will meet newly arising needs while clearing the backlog over this period, incorporating those households who are currently identified in need of affordable housing balanced against known supply over the next five years. While around 3,300 affordable homes will become available over the next five years, this will not meet the needs of the circa 3,900 households who are currently in the greatest need for housing. Further affordable housing provision over this period

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[161] BBC News (March 2014) Housing benefits: changes 'see 6% of tenants move'

will therefore be required, and this is reflected in the uplifted affordable housing need over the next five years.

6.122 Once the backlog is cleared, only newly arising needs will need to be met. This will be generated by the formation of new households – who are unable to afford the cost of private renting – and a number of existing households falling into need from other tenures. Collectively, these factors are estimated to generate an annual need for 3,842 affordable homes, which exceeds the estimated annual supply of 2,075 affordable homes across TGSE. In future, therefore, there will be an **annual need for 1,767 affordable homes** across the housing market area to meet newly arising needs.

6.123 Need is distributed throughout TGSE, although the assessment suggests that Southend-on-Sea, Castle Point and Rochford have the highest levels of need relative to the number of households in each authority. The assessment is also broken down by size, suggesting that there is a particular need for smaller stock in TGSE as a whole. There is a more limited need for larger property, and indeed the assessment suggests that – at a housing market area level – the backlog need for property with 3 or more bedrooms will be met through known supply over the next five years. There will therefore be a short-term need for smaller property, although – in terms of ongoing future need – the largest absolute need relates to 3 bedroom properties, given the relatively limited annual supply of property of this size.

6.124 With the assessment highlighting a sizeable need for affordable housing, it is beneficial to consider how intermediate products can play a role in meeting needs. In particular, this section has sought to identify those newly forming households who are unable to afford private rent but can afford intermediate products. This shows that shared ownership requires a similar income to that required to privately rent – with the exception of Thurrock, where shared ownership is more affordable and could meet 11% of the newly arising need for affordable housing – enabling households to choose between the flexibility of the private rented sector and the opportunity to secure and invest in a shared ownership property.

6.125 Affordable rent can also play a role in meeting needs. Across TGSE, of those 2,151 newly forming households who are estimated to be unable to afford the cost of private rent, around half can afford to access affordable rent at 60% of market levels. This could meet 29% of the newly arising need for affordable housing in TGSE, playing a particularly significant role in Castle Point and Southend-on-Sea.

6.126 Finally, the private rented sector is more than likely to continue to play a role in meeting affordable housing needs where there is limited supply of social rented stock, although as stressed through this section this is not classified as affordable housing within the guidance. A comparably high proportion of LHA claimants in TGSE rent in the private sector, with these claimants estimated to form around a quarter of all privately renting residents in the housing market area. The assessment in this chapter suggests that the sector could meet the needs of around 1,000 households per year across TGSE, although the combined effects of a freeze in LHA and continued growth in rents could limit the extent to which LHA claimants can meet their needs in the private rented sector.

7. Arriving at an Objective Assessment of Need

7.1 The evidence presented in sections 2 – 6 of this update has been structured around the methodological steps set out within the PPG for assessing housing need. This section uses the analysis to arrive at a recommended objective assessment of need (OAN) range for TGSE, in compliance with the PPG and the NPPF. This section is structured to reflect the key steps set out in the PPG.

7.2 The OAN for TGSE is built up from modelling undertaken for each of the constituent authorities. In accordance with the NPPF and PPG, it is important to consider housing need in full across the HMA geography, although the section concludes by considering the specific implications of the implied OAN range for each authority.

7.3 In translating this evidence base into policy, it will be important for the individual authorities to liaise to ensure that needs are met in full across the HMA geography, as far as is consistent with policies in the NPPF[162]. It is also recognised that the conclusions around OAN will need to be considered collectively across the TGSE area and for each authority in the context of subsequent local updates to other aspects of the evidence base, in particular assessments of likely job growth. These will have a potential implication for the concluded OAN and will need to be carefully monitored in the future.

Demographic Derived Need

7.4 The 2012 SNHP are identified as the 'starting point' for assessing housing need in the PPG, and show that the number of households in TGSE could increase by just over 64,000 equating to on average approximately 2,800 per annum over the projection period 2014 – 2037. This is underpinned by population growth of approximately 115,600 – increasing the total population by 16.7% – and would generate a need for approximately 2,886 dwellings per annum on average over this period, allowing for vacancy.

7.5 The household projections are underpinned by population projections published by the ONS, which show how the population may change if recent trends continue. The 2012-based sub-national population projections (SNPP) – published in 2014 and forming the basis for the household projections – project a level of growth which is higher than the national average of 14.6% for the equivalent period. The 2012 SNPP base migration assumptions on recent trends, which have incorporated a period of slow national recovery from a significant economic recession.

7.6 The analysis in section 3 has considered the projected population growth implied by the 2012 SNPP in the context of longer-term historic evidence as well as more up-to-date population data published following the 2012 SNPP dataset. This demographic evidence has been considered in the context of factors such as the supply of housing in accordance with the PPG.

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[162] DCLG (2012) National Planning Policy Framework (para 47)

7.7 Edge Analytics conclude from this analysis that the 2012 SNPP represents a robust demographic starting point from which to consider housing needs across TGSE.

7.8 A full set of the implied levels of housing need under the variant demographic sensitivity scenarios are summarised in Figure 7.1.

Figure 7.1:   TGSE Adjusted Demographic Projections
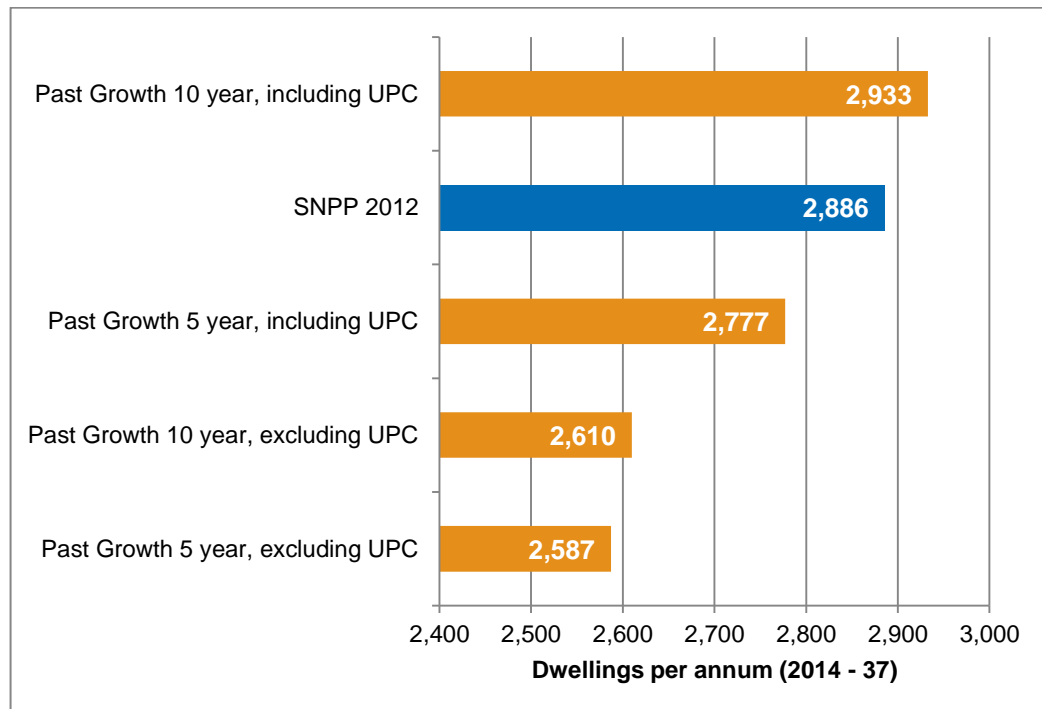
Source: Edge Analytics, 2015

7.9 The levels of projected growth under the 2012 SNPP show a more positive projection than those implied by longer term past growth scenarios incorporating the latest population data (2014 MYE) using a 10 year horizon as well as more up-to-date 5 year trend based projections where UPC is excluded. The headline analysis of development activity highlights that the area saw comparatively low levels of development when benchmarked against the national picture, in particular through the middle of the last decade, and this therefore suggests that trends based upon the historic period may, in part at least, be reflective of this comparatively low development rate. On this basis, this is not considered as being more representative of future projections of need than the higher level of growth projected under the 2012 SNPP.

7.10 Consideration has also been given to the impact of including the UPC within the trend based projections. The longer-term 10 year past growth scenario, with UPC included, suggests a marginally higher need for new dwellings, albeit a lower underpinning projection of population growth, than the 2012 SNPP. Analysis at an authority level, however indicates that this implied higher need is largely driven as a result of the inclusion of UPC in Southend-on-Sea. Edge Analytics, in considering local demographic data for the authority, consider that for a number of factors, including the potential under-count of population in the 2001 Census suggest that the inclusion of the UPC serves to over-estimate population growth for the authority to a degree. In the context of

level of uncertainty around UPC within Southend-on-Sea in particular, the scale of difference between the longer term 10 year past growth scenario including UPC and the 2012 SNPP projection is not considered sufficient to justify using an alternative population projection than the 2012 SNPP for the HMA as the demographic starting point.

7.11   Following the consideration of a range of variant sensitivity scenarios relating to the demographic evidence it is concluded that the 2012 SNPP represents an appropriate starting point for considering population growth and therefore demographic based need for the TGSE area.

7.12   The analysis has considered the implications of the variant scenarios and the historic demographic context of each authority. This serves to confirm that the 2012 SNPP represents an appropriate starting point for each authority in the context of the HMA but in a number of cases the local data also suggests reference and consideration should be given to the implied need based on a number of other scenarios in the context of considering other future drivers of need. A summary of the evidence considered for each authority is set out below in this context:

- **Basildon** – the latest demographic data suggests a stronger level of population growth than suggested within the 2012 SNPP. Whilst the 2012 SNPP represents an appropriate starting point projection of need, the analysis of demographic needs should therefore also include consideration of the projected higher level of need under the past growth 5 year trend scenario. The authority also saw an under-estimation of population growth illustrated by a positive UPC with the scenario including UPC therefore providing the upper end of a range of implied demographic need to be considered alongside other factors driving housing need.

- **Castle Point** – whilst the 2012 SNPP represents a higher level of projected growth than that implied by historical trends, primarily relating to internal migration, the implications of factors such as higher out-migration from London suggests it represents the most appropriate demographic starting point for the authority.

- **Rochford** – the evidence highlights a distinctive shift in Rochford's migration profile following the recession and its subsequent recovery, with variant levels of residential development a potentially important contributing factor. In the case of Rochford whilst the 2012 SNPP represents an appropriate starting point for assessing demographic needs consideration should also be given to the past growth 10 year trend scenario which implies a slightly higher level of need. Again as with Basildon the authority saw a modest under-count of its population between the Census years and so the 10 year past growth scenario including UPC should be considered as providing an upper end of a range of implied demographic need to be considered alongside other factors driving housing need.

- **Southend-on-Sea** – analysis of past trend scenarios including and excluding UPC shows a significant range of implied need for the authority. Given the uncertainties around UPC and a potential under-count of population in the 2001 Census the fact that the 2012 SNPP sits within this range reinforces its validity as

a demographic starting point for the authority. The potential sensitivity of need to variant migration assumptions is, however, recognised in the analysis.

- **Thurrock** – the 2012 SNPP implies a higher level of growth for the authority than that implied by any of the past growth scenarios considered. Natural change is a key driver of growth in all of the scenarios but the 2012 SNPP assumes a more substantial impact of migration over the forecast period. The latest ONS population estimates have implied a stronger level of growth than the 2012 SNPP and this coupled with a recognition of comparatively low historic rates of development therefore indicates that lower rates of need as implied by the trend-based projections should not be considered in preference to the official dataset.

7.13 The above analysis has concentrated on understanding underpinning population projections. In accordance with the PPG, it is also important to consider the implications of the historic context on household formation rates. Edge Analytics have appraised these rates in detail, with charts included at Appendix 5. This analysis has indicated that formation rates for younger households across all of the authorities have fallen between 2001 and 2011, with this suggesting a potential impact of constraints relating to the supply of housing.

7.14 For the vast majority of age groups across the authorities, the projected household formation rates do not, however, suggest a continued fall in rates for these age groups. Where the projections do suggest a further fall in formation rates, over the projection period this is comparatively marginal and does not represent a continuation of the scale of reduction between the last two Census years. This indicates that they provide a robust demographic 'starting point' for assessing future needs when combined with the population projection. However, the impact of historic market constraints on household formation rates is considered further in relation to the detailed review of market signals in section 5.

7.15 The important impact of potentially higher levels of migration from London has also been considered within the analysis. Edge Analytics has modelled a variant scenario of the 2012 SNPP taking into account the underpinning migration assumptions from the GLA Central scenario. This therefore assumes a closer return to more positive trends seen prior to the recession with regards to the migration relationship with London. Across TGSE, this implies a higher level of population growth based on higher net migration driven from increased net flows from the London Boroughs.

7.16 The modelling suggests a resultant need for 3,070 dwellings per annum under this scenario, which is higher than that based upon the starting point demographic projections. This reflects an assumed additional pressure from London on housing needs within TGSE.

Responding to Employment Trends

7.17 The PPG requires the SHMA to take employment trends into account when considering housing needs. Section 4 has included a detailed appraisal of the relationship between these two factors at a housing market area level in accordance with the PPG. Recognising the need for district level assessments of need, the relative balance has

also been made at this geographic level, although caution is noted in considering any identified uplifts at an authority level in isolation.

7.18 It is apparent from a review of historic job growth data that TGSE has successfully generated a strong level of employment growth. Looking at job growth over a period of more than 20 years, TGSE has seen its employment levels grow on average by 1.1% per annum. This exceeds the national rate of job growth over this period which was approximately 0.6% per annum. Recognising that this job growth was significantly impacted by a very strong level of job growth over a short period in the late 1990s – now over ten years ago – it is considered appropriate to look at the scale of job growth observed over the latest full period in which the economy has seen a full business cycle between growth and decline. Looking at these cycles from both a peak-to-peak and a trough-to-trough perspective suggests that TGSE has seen job growth of between 0.7% and 0.8% per annum. Again, this compares favourably with the long term performance of the national economy.

7.19 The analysis has considered two employment forecasts from reputable forecasting houses, both of which apply slightly different methodologies to generate forecast levels of job growth. These forecasts both suggest that the economy of TGSE will continue to generate new employment opportunities, forecasting average job growth of 0.6% and 0.7% per annum.

7.20 It is apparent from a review of recent strategic economic plans produced by the TGSE Partnership, the South East LEP and Essex County Council that there are a number of significant economic projects and programmes which are anticipated to be delivered in TGSE, which will generate jobs within the projection period. It is equally important to recognise that the historic periods considered above have included economic investment in the area from both the public and private sector. The SEP itself identifies an aspiration to create over 50,000 jobs in the area. Assuming this level of job growth was to be achieved by 2037 would suggest job growth of in the region of 0.7% per annum.

7.21 Taking account of this analysis collectively, it is considered reasonable to view 0.7% annual job growth in TGSE as a likely level of job growth over the projection period, for the purposes of the SHMA. It is understood that the South Essex authorities are in the process of commissioning an Economic Development Needs Assessment (EDNA) which will consider in detail the economic job growth anticipated in the area and the relationship between job growth and labour-force behaviour. This will provide important context for appraising the analysis in the SHMA presented in this section.

7.22 Edge Analytics has used the POPGROUP model to appraise the extent to which the projected growth in population under the 2012 SNPP – identified in section 3 as an appropriate starting point for considering demographic needs – and the SNPP London scenario which takes account of likely changing relationships with London would be able to support job growth of 0.7% per annum as indicated in the Experian forecast. The modelling uses a number of labour-force assumptions which are considered reasonable. These assumptions include no adjustments to rates of commuting, an improvement in unemployment rates and a range of adjustments to economic activity rates to recognise the impact of an ageing population in TGSE.

7.23 Based on these labour-force assumptions, this modelling suggests that the growth in the labour-force implied under the 2012 SNPP would be unlikely to be able to support an annual job growth of 0.7% in TGSE. The higher population growth under the SNPP London scenario results in a much closer alignment between the job growth projected in the POPGROUP model and the forecast growth in people-based jobs within the forecast, where assumptions around improving economic activity rates of older cohorts align with the OBR's own forecasts. The close alignment of these factors suggests that it is reasonable to consider that the scale of population growth assumed under the SNPP London scenario would be likely to be able to support job growth in the region of 0.7% per annum across TGSE.

7.24 However, the analysis has also highlighted that there are considerable uncertainties associated with the projected changes in labour-force behaviour, which have a notable impact on the balancing of job growth and labour-force and therefore derived housing need.

7.25 In this context – and in order to ensure a level of transparency in the modelling – a series of employment-led scenarios were generated using POPGROUP, with the population change linked to supporting job growth of 0.7% per annum as forecast within the Experian model. These scenarios illustrated the impact of applying variant assumptions around key labour-force variables, including economic activity rates of older cohorts and the proportion of people which are expected to undertake more than one job. Importantly, all of these scenarios assumed that commuting rates would remain constant.

7.26 As noted above, whilst the lower end of these projections showed a strong alignment with the SNPP London scenario, other scenarios indicated that an uplift in population growth beyond this demographic projection may be required to support job growth. This reflects variant labour-force assumptions, where older cohorts participate in the local economy less, for example, or different assumptions are made regarding the proportion of people undertaking more than one job. The outputs of these variant scenarios are shown in Figure 7.2.

Figure 7.2:   Variant Projections Aligned to 0.7% Job Growth (Experian forecast)
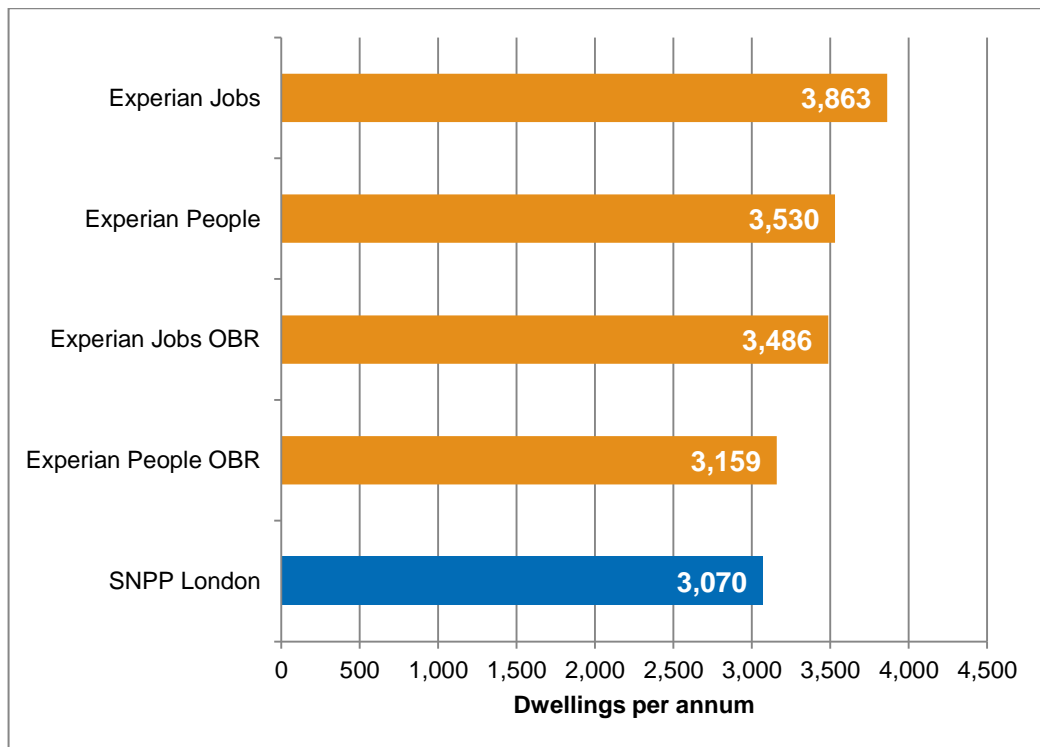
Source: Edge Analytics, 2015

7.27   The scenario illustrating the highest level of housing need is considered to represent an overly cautious outlook on labour-force behaviour in the context of the assumptions applied by the forecasting houses and national forecasts derived by the OBR. This scenario assumes a one-to-one relationship between job growth and labour-force growth, with no allowance made for double-jobbing, and an increase in the activity rates of older cohorts which is limited solely to state pension age changes. The other two scenarios, however, show strong alignment, taking into account differing views of double-jobbing and economic activity rates. These scenarios are considered to represent an appropriate upper end of a range of housing need, recognising the uncertainties involved in aligning job growth and population change. Selecting a single scenario at this upper end suggests that the upper end of housing need in this context would be approximately 460 dwellings per annum higher than the upper end of the demographic scenarios across TGSE.

Taking Account of Market Signals

7.28   The analysis of market signals has highlighted a worsening in some market signals in TGSE, although it is noted that there is a considerable variation when considering individual authorities' performance against neighbouring authorities and the national level.

7.29   All of the authorities have seen house prices increase since 2001, with Southend-on-Sea in particular registering increases which exceed the national average. Thurrock has seen a significant uplift in rental levels in particular. With regards to affordability, all authorities have seen a worsening relationship between entry-level house prices and

earnings, particularly in Basildon and Thurrock. There has also been an increase in the number of concealed families in TGSE, which is seen within the PPG as a potential indicator of unmet need for housing.

7.30   Importantly, the analysis of market signals also indicated that there has been a significant historic under-supply against planned housing targets at the wider TGSE level, with approximately 10,300 fewer dwellings delivered than planned to 2014. The vast majority of this shortfall relates to Thurrock and Basildon, with Southend-on-Sea broadly meeting plan targets over this period.

7.31   Whilst TGSE is in absolute terms an area of comparatively low house prices when compared with many neighbouring areas – as shown in the defining of the HMA in section 2 and in the analysis in this section – it is apparent that it demonstrates symptoms of worsening market signals, in the context of the PPG.

7.32   The picture is by no means consistent across the market signals, nor does the area as a whole – or any one authority – demonstrate a significant or consistent level of market imbalance when compared in particular against national benchmarks. Unlike many areas in and around London and across the southern regions, there are comparatively large parts where prices and rents are comparatively low and where there is evidence of a demand for housing as a result.

7.33   Overall, the evidence points towards affordability pressures across the HMA, on which basis it is considered appropriate to assess the need for an upward adjustment to the implied housing need from the household projections. It is apparent that there is a level of variation in the interpretation of market signals and the application of a reasonable uplift in the context of a range of Inspectors' decisions.

7.34   It is, however, apparent that there is evidence of household formation rates being suppressed over recent years in each of the TGSE authorities. In order to present an evidenced based positive adjustment responding to this suppression of household formation rates – of which affordability pressures are likely to have been a significant contributing factor – sensitivity testing has been undertaken by Edge Analytics, in line with the PPG. This assumes that household formation rates return to 2001 rates in younger age groups – where this is not already projected – by 2024, given that this was the last point at which the ratio between house prices and earnings was at the long-term average. A return to this set of market conditions could therefore represent a healthier and more sustainable housing market.

7.35   The adjustment is applied to all scenarios, and uplifts the implied level of housing need to allow for the formation of additional younger households. This represents an uplift of around 7% across the HMA. The scale of uplift varies across each of the authorities from approximately 5.4% to 10.6%, reflecting the extent to which household formation rates have been suppressed and the age profile of the population in each authority.

7.36   This uplift relates to an evidenced response to potential increased need for housing from the changing population in the area. It is recognised that the PPG also recognises the potential need for an adjustment based on elevating supply further in order to improve affordability in particular. It is considered that this supply-led adjustment needs to be considered in the context of the evidenced need for affordable housing and alongside

the other adjustments made in response to demographic and economic factors with this considered later in this section in concluding the OAN.

7.37 In considering the need for affordable housing in the context of the OAN, a High Court judgement recently confirmed how the gross unmet need for affordable housing – presented in section 6 of this report – should be considered:

"The Framework makes clear these needs should be addressed in determining the…[Full Objective Assessment of Need (FOAN)], but neither the Framework nor the PPG suggest that they have to be met in full when determining that FOAN. This is no doubt because in practice very often the calculation of unmet affordable housing need will produce a figure which the planning authority has little or no prospect of delivering in practice. This is because the vast majority of delivery will occur as a proportion of open-market schemes and is therefore dependent for its delivery upon market housing being developed" [163]

7.38 In this context, the High Court judgement then proceeds to reference the PPG, which states:

"The total affordable housing need should then be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the local plan should be considered where it could help delivery the required number of affordable homes." [164]

7.39 An updated assessment of affordable housing need is presented in section 6, confirming that there is a significant level of unmet and likely future need for affordable housing across TGSE. This assessment identifies a current unmet gross need for just approximately 3,900 affordable homes, based on households in greatest need on the waiting list, although just over one in three of these households are currently occupying affordable housing. The analysis of concealed families – drawing upon evidence from the 2011 Census, and considered as a market signal in section 5 – also shows that there were 3,060 families who did not live in independent households at the time of the Census, although this is not directly taken into account in the affordable housing need calculation in order to avoid double counting. This scale of unmet needs of households who are not currently housed should be considered in the context of headship rate adjustments, identified previously in this section, which assume a return to more positive formation rates for younger households, thereby assuming a reduction in concealed families [165].

7.40 Taking account of known supply over the next five years and also meeting the net additional needs generated by newly forming and existing households falling into need suggests that 1,877 affordable homes would be needed annually over the period to

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[163] Borough Council of Kings Lynn and West Norfolk v Secretary of State for Communities and Local Government, ELM Park Holdings Ltd, [2015] EWHC 2464 (Admin)
[164] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_029
[165] Under the 2012 SNPP scenario the adjustment results in an additional 159 dwellings being needed per annum. Over the full projection period this equates to almost 3,660 dwellings

2020. Provision of this scale would clear the backlog, subsequently requiring 1,767 affordable homes per annum thereafter to meet newly arising needs to 2037.

7.41 Within this calculation, it is important to recognise that newly forming households represent a subset of the overall projection of demographic housing need modelled by Edge Analytics (2012 SNHP), which forms the 'starting point' for the assessment of overall housing need. Within the newly arising need component, the remainder consists of households requiring affordable housing but already housed in the private market, who would free up a property for occupation by another household if an affordable home was provided. There is therefore a complex relationship between affordable housing provision and market housing, which needs to be carefully considered in accommodating affordable housing needs in full.

7.42 The High Court judgement confirms that the SHMA should address the need for affordable housing when determining the OAN, in order to conform with the NPPF, and continues:

'…when paragraph 47 of the Framework requires the local plan to meet "the full objectively assessed needs for market and affordable housing," that is the figure determined by the SHMA required by the paragraph 159 of the Framework for the purpose of identifying the FOAN. That process, guided by the PPG, seeks to meet household and population projections (taking account of migration and demographic change), and to address the need for types of housing including affordable housing.'

7.43 Recognising the high level of affordable housing need identified, it will be important for the Councils to seek to maximise the delivery of affordable housing through the provision of market housing. It is important to highlight that a significant amount of this need relates to existing households or those projected to form under the 2012 SNHP, and this would therefore not add to the overall need for housing.

7.44 Equally, any associated uplift to assist in supporting the provision of affordable housing should be considered in the context of implied adjustments to the demographic projections, including adjustments to headship rates, and in taking economic signals into account. The balance between job creation and labour force change can be altered if housing provision exceeds the scenarios considered in this paper, and the consequences of this should be considered.

7.45 This is considered further in the following section in identifying an updated objective assessment of need.

Recommending an OAN Range

7.46 The demographic analysis undertaken by Edge Analytics has confirmed that the 2012 SNPP and SNHP represent an appropriate 'starting point' for considering demographic needs within TGSE. For a number of authorities, however, it is recognised that historic factors and/or updated demographic data indicate that demographic needs could exceed the level implied by the 2012 SNHP.

7.47 It is recognised that TGSE shares an important relationship with London, while there has been evidence of higher levels of population growth over more recent years,

particularly in Basildon and Thurrock. It is therefore considered important to take account of the adjustment to migration assumptions to align with the GLA Central scenario. This results in an uplifted need arising from demographic factors alone, while further growing the labour force which it is considered is broadly sufficient to meet the anticipated likely job growth rate of 0.7% per annum.

7.48   In the context of the economic evidence available, however, it is considered that it is important to identify that an uplift could be required above this elevated level of demographic growth to reflect uncertainties involved in aligning job growth and labour-force growth. It is recommended that the OAN take the form of a range to recognise this uncertainty, with the upper end based upon an alternative reasonable set of labour-force assumptions in the POPGROUP model to support 0.7% job growth. It is understood that the forthcoming EDNA for TGSE will provide further confirmation as to the likely job growth anticipated in the area and its relationship to labour-force behaviour assumptions. This will require consideration of the appropriateness of the range identified in the SHMA for housing need on this basis.

7.49   The analysis of market signals has confirmed that there is a need to uplift the assessed housing need from the demographic 'starting point' to take account of an imbalance between housing demand and supply which has impacted upon younger households in particular.

7.50   In order to respond to market signals evidence, it is considered appropriate to apply a positive adjustment to household formation rates amongst younger age groups. The adjustment to the headship rates of younger households results in an implied further 7% uplift to housing need in TGSE, compared to that modelled through the application of unmodified 2012-based rates. This would provide approximately 200 additional dwellings annually when taking into account the adjustments already made to the projections of population growth associated with changing migration levels with London and to align with likely forecast employment growth. This results in an **OAN range of between 3,272 – 3,744 dwellings per annum** for the TGSE HMA.

7.51   The implied growth in dwellings represented by the OAN range would result in an annual average growth in the dwelling stock of between 1.1% and 1.3% per annum across TGSE.

7.52   The identified level of housing need evidently represents a significant 'boost' in the context of recent levels of development. This is illustrated in the following table, which compares historic annual delivery across TGSE over the period from 2001 to 2014 against the OAN range. For additional context, the highest annual net completion figure recorded over this period is also compared against the OAN to illustrate the extent to which the OAN represents an uplift against the highest level of recent delivery.

Figure 7.3:   TGSE OAN Range compared with Past Housing Delivery

	Average historic net completions (2001 – 14)	Highest recorded annual level (2005/06)
Annual completions (dpa)	**1,431**	**2,301**
Uplift relative to lower OAN (**3,272dpa**)	129%	42%
Uplift relative to upper OAN (**3,744dpa**)	162%	63%

Source: Council Monitoring Reports, Turley & Edge Analytics modelling, 2015

7.53   It is apparent that the OAN range at both the lower and upper end represents a substantially accelerated rate of delivery or growth in the supply of housing compared against recent delivery performance. Realising this level of development would potentially create downward pressure on house prices across the HMA, which in turn would contribute to addressing affordability issues. Whilst it is now relatively dated, the Barker Review of Housing Supply indicated that an 86% increase in private sector house building – from a base of 140,000 private sector gross starts in 2002-03 – would be necessary to reduce house price inflation down to the European average (1.1%):

"To reduce the real price trend to either 1.8 per cent or the EU average of 1.1 per cent would require between 70,000 and 120,000 additional houses to be built each year. Under these scenarios affordability is increasingly improved over time, by 2021 between an extra 5,000 and 15,000 newly forming households are able to afford to buy housing compared to a baseline in 2002."[166]

7.54   Recognising this national research – and in the context of the scale of uplift represented by the OAN compared to historic rates of delivery – it is not considered appropriate to apply any further supply-led upward adjustment to the OAN range. This also recognises the scale of adjustments already applied in relation to other aspects of the methodology.

7.55   Whilst it is evident that the full range of OAN will represent a substantial boosting of supply compared to historic levels, the evidenced high need for affordable housing across the TGSE area – set in the context of the market signals analysis and in particular comparatively high affordability barriers to occupying market housing – strongly suggests that weight should be given to the upper end of the OAN range in the development of housing policy and the assessment of housing land supply. Providing for the upper end of the range will represent a positive response to the evidenced high need for housing across the TGSE area. This needs to be considered, however, in the context of any further published economic evidence for TGSE or indeed individual local authorities.

7.56   It is beneficial to understand the scale of adjustment and uplift associated with the various stages of the stepped methodology advocated within the PPG. The following chart shows the upward adjustment from the recommended demographic 'starting point' recommended by the 2012 SNHP for TGSE as a whole.

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[166] Barker Review Final Report – Recommendations (2004) – paragraph 1.40 and reference to table 1.1

Figure 7.4:   Adjustments to the Demographic Starting Point Implied in the Evidencing of the OAN – TGSE
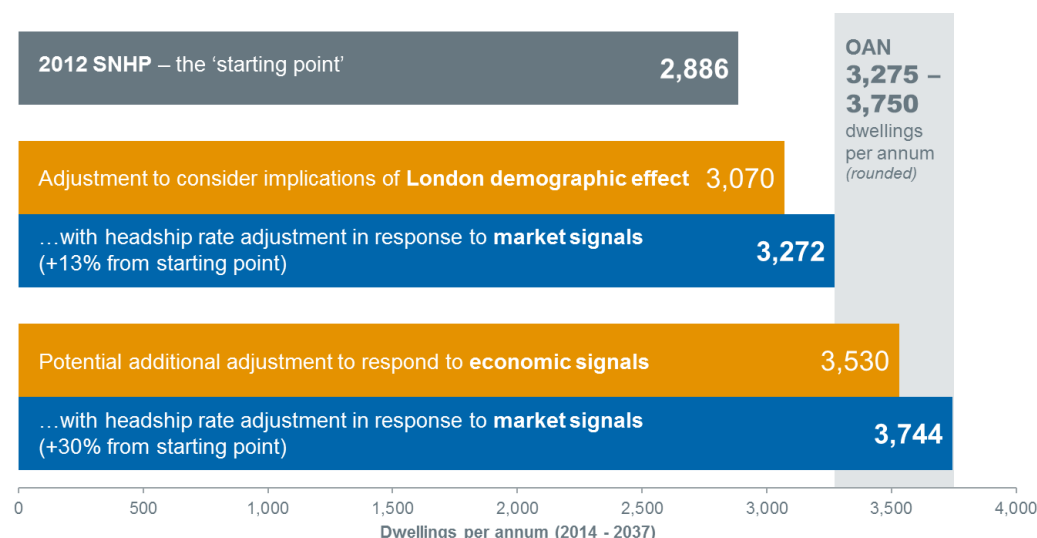
Source: Turley, 2015

Implications for TGSE Authorities

7.57   The OAN presented above is constructed from projections for each of the TGSE authorities. In order to inform Local Plan preparation, the following section considers the scale of need within each of the individual authorities over the period from 2014 to 2037. This takes account of the individual conclusions reached regarding the demographic projections of need, while considering further local factors such as job growth supported and the calculated need for affordable housing in each authority[167].

7.58   At a local authority level, recognising the more detailed considerations of the drivers of the need for housing in the preceding six sections, it is apparent that individual factors suggest a greater level of sensitivity to adjustments at this level. For example, at a local level, the potential demographic projections of need showed a greater level of variance for a number of authorities, with this impacting on the scale of potential labour-force growth associated. In the context of the summaries below, the recommendation that weight be given to the upper end of the OAN range in developing planning policy and assessing housing land supply is reinforced and further emphasised for a number of the TGSE authorities in particular.

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[167] Affordable housing need figures cited are based on meeting the full need (backlog and new need) for affordable housing over first five years of projection period (2014 – 2019) and net new need thereafter, resulting in an average net annual need over the full projection period (2014 – 2037)

Basildon

Figure 7.5: **Adjustments to the Demographic Starting Point Implied in the Evidencing of the OAN – Basildon**
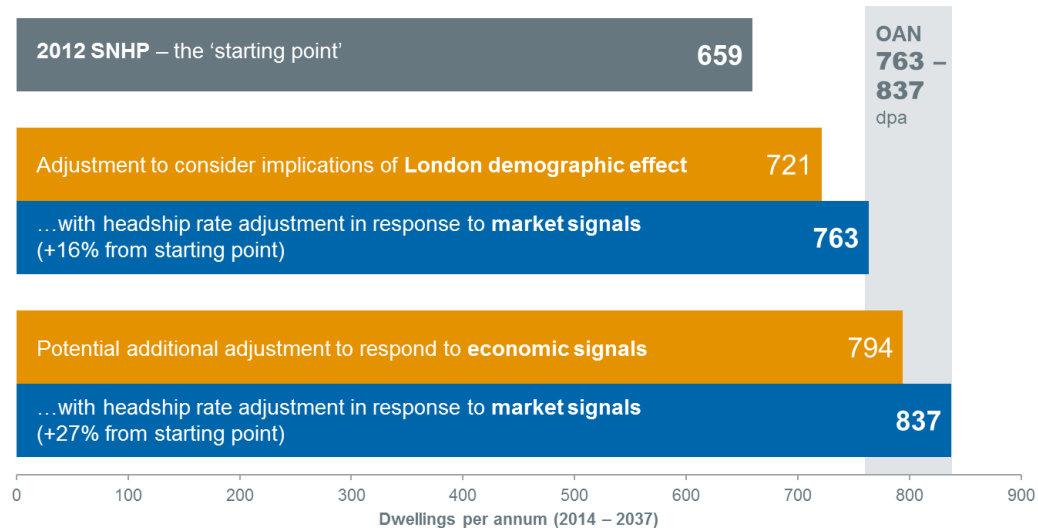
Source: Turley, 2015

7.59 Within Basildon, the review of the demographic drivers highlighted that more recent population estimates suggest a greater level of growth than that implied within the 2012 SNPP. This is reflected in the 5 year past growth scenario for the borough, which implies a slightly higher level of need. In addition, Basildon also saw a modest under-estimation of population between the Census years, indicating a positive adjustment relating to UPC. Recognising the uncertainty relating to UPC, it is of note that the SNPP London scenario falls within the range provided by the 5 year past growth scenarios and is therefore considered to adequately capture potentially higher levels of need indicated by more recent levels of population growth.

7.60 The analysis of the balance of jobs and labour force suggests that whilst the SNPP London scenario would potentially generate sufficient labour-force capacity to accommodate the distributed level of job growth under the 0.7% annual growth across TGSE in the authority. The application of variant labour force assumptions suggests that need could require a further uplift. The application of an adjustment to household formation rates also applies a further uplift to the projected need for housing, approximately 6%. This results in an OAN range of between 763 and 837 dwellings per annum for Basildon.

7.61 The calculation of affordable housing need suggests a net need for 174 affordable homes annually over the projection period. This indicatively represents between 21 – 23% of the total OAN range. Whilst it is not appropriate to directly contrast the two figures – given the different calculation methodology – this represents a comparatively modest proportion, although this factor should be considered in developing a housing requirement through the Local Plan, based on the OAN.

Castle Point

Figure 7.6: **Adjustments to the Demographic Starting Point Implied in the Evidencing of the OAN – Castle Point**

2012 SNHP – the 'starting point'	286
Adjustment to consider implications of **London demographic effect**	296
…with headship rate adjustment in response to **market signals** (+14% from starting point)	326
Potential additional adjustment to respond to **economic signals**	378
…with headship rate adjustment in response to **market signals** (+43% from starting point)	410

OAN **326 – 410** dpa

Dwellings per annum (2014 – 2037)

Source: Turley, 2015

7.62   The analysis of demographic evidence for Castle Point highlights that the 2012 SNPP is considered to represent an appropriate demographic starting point for assessing need.

7.63   The adjustment made to recognise the relationship with London suggests a higher level of population growth. The analysis of the balance of jobs and labour force suggests that the SNPP London scenario would go a significant way to generating sufficient labour-force capacity to accommodate the distributed level of job growth under the 0.7% annual job growth across TGSE in the authority. It is recognised, however, in Castle Point the demographic projections assume a small contraction in the size of working age population with job growth therefore largely supported through a re-occupation of labour capacity and an assumption around the older cohorts of the workforce remaining in work for longer. This represents a potential risk with regard to supporting employment growth in the authority and it is recommended in this context that weight is given to the upper end of the concluded appropriate scenarios of need.

7.64   The application of variant labour force assumptions suggests that need could require a further uplift. The application of an adjustment to household formation rates also applies a further uplift to the projected need for housing, approximately 10%. This results in an OAN range of between 326 and 410 dwellings per annum.

7.65   There is a calculated need for 249 affordable homes annually in Castle Point over the projection period to 2037. This represents between 61 – 76% of the total OAN range. Whilst it is not appropriate to directly compare the two figures due to the differences in methodology, this represents a high proportion of overall needs, which in accordance with the conclusion for the HMA as a whole would lend greater credence to the upper end of the OAN range presented. This should be considered through the development of local planning policy.

Rochford

Figure 7.7: Adjustments to the Demographic Starting Point Implied in the Evidencing of the OAN – Rochford
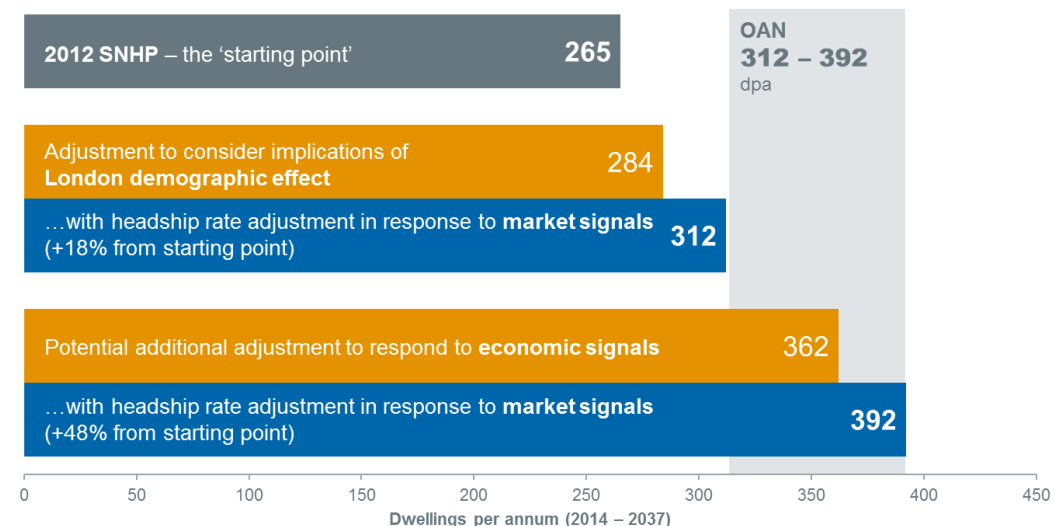
Source: Turley, 2015

7.66   The analysis of demographic factors for Rochford highlighted a distinctive shift in the district's migration profile following the recession and subsequent recovery, with variant levels of residential development a potentially important contributing factor. On this basis, whilst the 2012 SNPP was considered an appropriate starting point, it was also concluded that demographic needs could be as high as 332 dwellings per annum if a longer term 10 year past growth trend was sustained. This captures higher levels of growth prior to the recession, while taking UPC into account. In this context, the higher level of population growth and housing need associated with the SNPP London scenario is considered an appropriate level of adjustment to capture future demographic need pressures.

7.67   The analysis of the balance of jobs and labour force suggests that the SNPP London scenario would go a significant way to generating sufficient labour-force capacity to accommodate the distributed level of 0.7% job growth across TGSE in the authority. It is recognised, however, that in Rochford, the demographic projections assume a very modest growth of the working age population, with job growth therefore largely supported through a re-occupation of labour capacity and an assumption around the older cohorts of the workforce remaining in work for longer. As with Castle Point, this represents a potential risk with regard to supporting employment growth in the authority.

7.68   In the context of the demographic scenarios indicating potentially higher levels of need and the potential risks associated with supporting forecast employment growth in the authority, it is recommended that weight is placed on the upper end of the range of scenarios associated with balancing jobs and labour-force. The application of an adjustment to household formation rates also applies a further uplift to the projected need for housing, approximately 11%. This results in an OAN range of between 312 and 392 dwellings per annum.

7.69 There is a calculated need for 222 affordable homes annually over the projection period, which – though not appropriate to directly compare the two methodologies used – represents between 57 – 71% of the total OAN range. The comparatively high level of affordable housing need strongly suggests that weight should be placed upon the upper end of the identified range, in order to more positively respond to sustained affordability issues in Rochford. This should be considered by the Council as local planning policy is developed.

Southend-on-Sea

Figure 7.8:   Adjustments to the Demographic Starting Point Implied in the Evidencing of the OAN – Southend-on-Sea
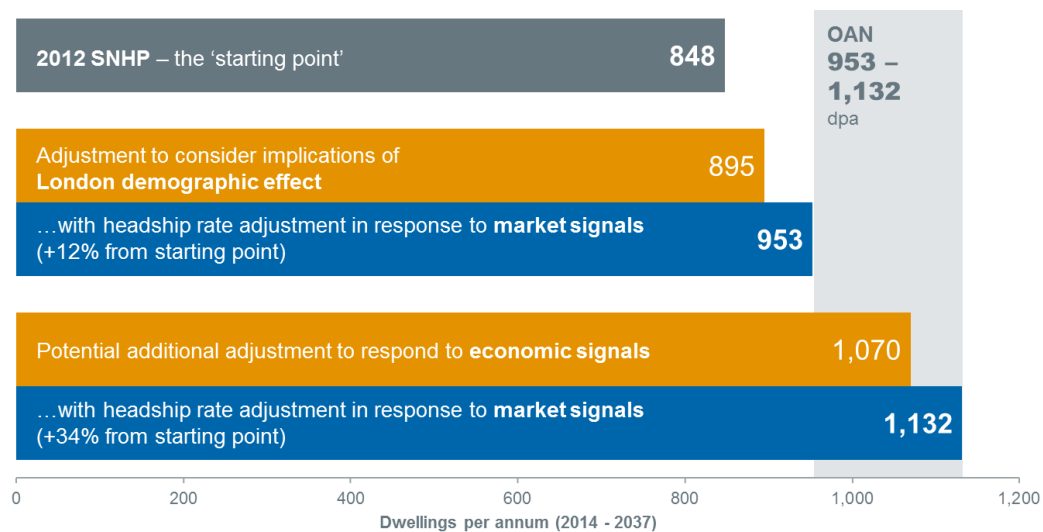
Source: Turley, 2015

7.70 The demographic evidence for Southend-on-Sea is particularly complex, given the scale of UPC identified following the 2011 Census. The detailed consideration of available evidence by Edge Analytics has concluded that whilst a wide range of potential demographic needs can be modelled based upon historic data, the 2012 SNPP represents an appropriate projection for assessing demographic trend-based needs for the authority. The upward adjustment relating to London – modelled in the SNPP London scenario – suggests a higher level of need, which would also reflect more closely evidence of strong population growth over recent years.

7.71 The upper end of the OAN range incorporates a potential adjustment to respond to comparatively strong forecast job growth in Southend-on-Sea, although it is acknowledged that the likely scale of job growth in the borough will be refined through the preparation of further economic evidence by the TGSE authorities. The level of labour-force growth implied under the SNPP London scenario is identified as broadly supporting the forecast level of job growth, which would exceed long-term historic trends. Recognising uncertainties around labour-force behaviour would suggest, however, that needs could potentially be higher to accommodate this employment growth level. The application of an adjustment to household formation rates also applies a further uplift to the projected need for housing, approximately 7%. This suggests an OAN range of between 953 and 1,132 dwellings per annum.

7.72   There is a calculated need for 590 affordable dwellings per annum in Southend-on-Sea over the projection period to 2037. While not appropriate to directly compare this figure with the OAN, this represents between 52 – 62% of the range identified. In developing the Local Plan, this therefore suggests that weight should be placed towards the upper end of the OAN range, in order to ensure that there is a positive response to evident affordability issues in the borough.

Thurrock

Figure 7.9:   Adjustments to the Demographic Starting Point Implied in the Evidencing of the OAN – Thurrock
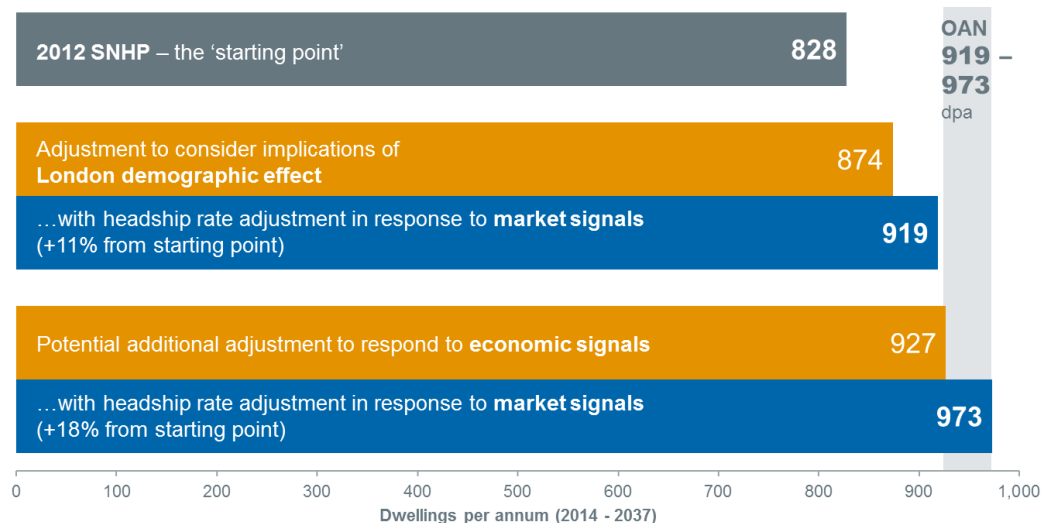
Source: Turley, 2015

7.73   The 2012 SNPP would generate a higher level of demographically derived growth in Thurrock than historic migration trends would suggest, over both longer and shorter-periods. The implications of comparatively low levels of development historically and the evidenced market relationships with London, however, clearly indicate that the higher levels of migration assumed within the 2012 SNPP appear reasonable.

7.74   Recognising the important relationship with London the London adjustment suggests a higher level of population growth and housing need. This reflects anticipated ongoing pressures resulting from the growth of London on Thurrock which will be an important driver of future housing need in the authority.

7.75   The analysis of the balance of jobs and labour force suggests that the SNPP London scenario would potentially generate sufficient labour-force capacity to accommodate the distributed level of 0.7% job growth across TGSE in the authority. The application of variant labour force assumptions suggests that need could, however, require a further uplift. The application of an adjustment to household formation rates also applies a further uplift to the projected need for housing, approximately 5%. This suggests an OAN range of between 919 and 973 dwellings per annum.

7.76   The analysis in section 4 identifies that Thurrock in particular has seen a strong historic level of job growth. The two forecasting houses identify that Thurrock will continue to

see the strongest level of growth over the projection period, with a review of planned investment reinforcing this position. In the context of this strong job growth potential, it will be important for the EDNA to consider the assumed level of job growth in Thurrock underpinning the OAN above and any implications this has for the distribution of housing need across the HMA.

7.77   Over the full projection period, there is a calculated need for 555 affordable dwellings annually. This represents between 57 – 60% of the total OAN range, although caution should be applied in comparing the two numbers due to the different methodologies applied. This is a high proportion, placing further weight on considering the upper end of the OAN range as more representative of needs in Thurrock. This should be considered further through the development of a housing target through the Local Plan.

Summary and Implications

7.78   Across TGSE, the analysis in this section indicates that there is an objectively assessed need for between 3,272 and 3,744 dwellings per annum, rounded as appropriate to **3,275 to 3,750 dwellings per annum**.

7.79   The identified strong economic growth potential of the HMA as well as the evidenced need for affordable housing in each of the authorities strongly suggests that weight should be placed upon the upper end of this range, in order to meet housing needs in full and positively respond to affordability issues in the area. This would also suggest greater flexibility as to the growth of the local labour-force to support the economic growth potential of TGSE.

7.80   The publication of new data and evidence should be monitored by the Councils, in order to identify where new evidence could impact upon the OAN. This will include the preparation of new economic evidence across TGSE within the EDNA, which is anticipated to provide a clear position on likely future job growth in the area which takes full account of policy, strategy and planned economic investment.

8. Needs for Different Types of Housing

8.1 The PPG highlights the importance of considering the size and type of housing required once an overall housing figure has been identified[168]. It is suggested that current and future trends in age profile, household type, the current housing stock and its tenure composition should all be considered, continuing:

"This information should be drawn together to understand how age profile and household mix relate to each other, and how this may change in the future. When considering future need for different types of housing, plan makers will need to consider whether they plan to attract a different age profile eg increasing the number of working age people"[169]

8.2 The importance of comparing future need against the current profile is also highlighted:

"Plan makers should look at the household types, tenure and size in the current stock and in recent supply, and assess whether continuation of these trends would meet future needs"[170]

8.3 This chapter therefore establishes the current profile of TGSE, highlighting key trends in occupying housing before applying these trends to the level of growth implied by the objective assessment of need. The specific needs of different groups are also considered, following guidance in the NPPF and PPG.

Size and Tenure of Housing Required

Existing Housing Stock

8.4 The PPG highlights the importance of establishing the current stock profile to understand the available supply of housing, and recent change in stock should also be considered to identify key trends.

8.5 The 2011 Census provides the latest up-to-date profile of the housing stock in TGSE, and this can be compared to the 2001 Census to determine recent changes in the stock profile. This is typically based on household spaces, which is a count of the accommodation available for use by an individual household[171].

8.6 In 2011, there were around 289,000 household spaces in TGSE, with the following table showing the concentration of different types of accommodation, based on the proportion of unshared household spaces[172]. This is broken down by each authority, and is also compared with the national profile.

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[168] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_021
[169] Ibid
[170] Ibid
[171] ONS (2014) 2011 Census Glossary of Terms
[172] Type breakdown is not available for shared household spaces

Figure 8.1:   Household Spaces by Type 2011

	Household spaces	Detached	Semi-Detached	Terraced	Flat and other[173]
Basildon	**74,039**	21.7%	25.7%	35.2%	17.4%
Castle Point	**37,693**	41.6%	38.1%	8.2%	12.2%
Rochford	**34,461**	32.9%	46.9%	8.0%	12.1%
Southend-on-Sea	**79,126**	15.8%	30.9%	18.3%	35.0%
Thurrock	**63,889**	11.9%	32.9%	32.3%	22.9%
TGSE	289,208	**21.9%**	**32.9%**	**23.1%**	**22.1%**
England	–	22.3%	30.7%	24.5%	22.6%

Source: Census 2011

8.7   When considering TGSE overall, it is evident that the stock profile closely follows the national trend, albeit with slightly higher proportion of semi-detached stock and slightly fewer terraced properties. There is, however, notable variation within TGSE, with Rochford and particularly Castle Point characterised by higher proportions of both detached and semi-detached stock. These authorities consequently have relatively few terraced and flatted household spaces, which contrasts with Basildon and Thurrock, which both have higher concentrations of these accommodation types, but – particularly in Thurrock – relatively little detached stock. Southend-on-Sea also has a notably high number of flats, exceeding the levels seen across TGSE or nationally.

8.8   This can be compared against the 2001 Census to establish change in stock of different types in TGSE, and this is summarised in the following table. Across TGSE, this shows that the majority of growth has been driven by increases in the number of flatted and shared properties, with smaller increases in other types of accommodation. This falls below the national rate seen over the same period.

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[173] Includes mobile and temporary accommodation and shared dwellings

Figure 8.2: Change in Household Spaces by Type 2001 – 2011

	Detached	Semi-Detached	Terraced	Flat and other[174]	**All**
Basildon	2.1%	5.2%	1.3%	16.9%	**4.5%**
Castle Point	1.7%	-0.6%	1.4%	84.8%	**5.3%**
Rochford	5.3%	1.6%	4.4%	41.1%	**5.2%**
Southend-on-Sea	1.3%	2.3%	3.1%	15.4%	**6.5%**
Thurrock	4.5%	3.2%	0.0%	32.8%	**7.5%**
TGSE	**2.7%**	**2.5%**	**1.4%**	**24.3%**	**5.9%**
England	7.1%	5.4%	2.7%	24.4%	**8.4%**

Source: Census 2001; Census 2011

8.9 The changing stock profile of TGSE is likely to have impacted upon the size of property available, although it is challenging to understand how this has changed given that this was not recorded in the 2001 Census. Nevertheless, the current size of household spaces in TGSE provides important context, and is presented in the following table alongside England for context.

Figure 8.3: Number of Bedrooms in Household Spaces 2011

	0	1	2	3	4	5+
Basildon	0.3%	11.9%	24.9%	41.9%	17.8%	3.2%
Castle Point	0.2%	9.3%	27.8%	40.3%	19.2%	3.2%
Rochford	0.1%	8.3%	25.6%	40.9%	21.1%	4.0%
Southend-on-Sea	0.3%	17.2%	29.7%	35.8%	13.5%	3.5%
Thurrock	0.2%	11.6%	25.8%	49.2%	10.8%	2.4%
TGSE	**0.3%**	**12.5%**	**26.9%**	**41.6%**	**15.7%**	**3.2%**
England	0.2%	11.8%	27.9%	41.2%	14.4%	4.6%

Source: Census 2011

8.10 Southend-on-Sea evidently has a higher concentration of smaller properties, with a comparatively high number of studios, 1 and 2 bedroom properties relative to the TGSE and national profile. In contrast, Castle Point and Rochford are characterised by larger properties, which is likely to reflect the smaller number of flats and terraced properties in these authorities.

8.11 It is also important to consider housing tenure, and the following table summarises tenures through which households in TGSE accessed housing in 2011.

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[174] Includes mobile and temporary accommodation and shared dwellings

Figure 8.4:   Household Tenure 2011

	Owned outright	Owned with mortgage or loan	Shared ownership	Social rented	Private rented from landlord	Other private landlord	Living rent free
Basildon	28.9%	37.0%	1.0%	22.0%	9.4%	0.9%	0.9%
Castle Point	43.1%	39.5%	0.3%	5.3%	9.8%	1.1%	0.9%
Rochford	41.5%	41.4%	0.2%	7.6%	7.6%	0.9%	0.8%
Southend-on-Sea	30.7%	34.4%	0.4%	11.5%	20.7%	1.3%	0.9%
Thurrock	25.5%	40.7%	0.5%	18.4%	13.2%	0.9%	0.8%
TGSE	**32.0%**	**38.0%**	**0.5%**	**14.5%**	**13.1%**	**1.0%**	**0.9%**
England	30.6%	32.8%	0.8%	17.7%	15.4%	1.4%	1.3%

Source: Census 2011

8.12   Relative to the national profile, TGSE has slightly higher levels of owner occupation, with the social and private rented sectors slightly under-represented. Owner occupation is particularly prevalent in Castle Point and Rochford, and indeed many of these households own their property outright. Conversely, while owner occupation remains the dominant tenure, the social rented sector plays a sizeable role in Basildon and Thurrock, while the private rented sector accommodates over one in five households in Southend-on-Sea.

8.13   Understanding changing tenure trends provides important context, and the following table therefore summarises growth in the number of households in different tenures between 2001 and 2011, based on the Census.

Figure 8.5: Change in Household Tenure 2001 – 2011

	Owned outright	Owned with mortgage or loan	Shared ownership	Social rented	Private rented from landlord	Other private landlord	Living rent free
Basildon	19.2%	-11.7%	-0.1%	-1.2%	130.8%	55.8%	-23.5%
Castle Point	11.5%	-15.4%	-11.2%	-1.3%	130.8%	54.8%	17.7%
Rochford	15.8%	-9.1%	-1.3%	-4.4%	93.4%	14.9%	-13.7%
Southend-on-Sea	-1.2%	-8.5%	5.2%	2.8%	62.9%	43.9%	-16.9%
Thurrock	14.4%	-9.4%	65.0%	-3.4%	137.8%	50.8%	-24.1%
TGSE	**10.7%**	**-10.6%**	**8.6%**	**-1.2%**	**95.1%**	**45.0%**	**-16.8%**
England	13.0%	-9.1%	30.0%	-0.9%	89.1%	31.7%	-29.6%

Source: Census 2011; Census 2001

8.14   At a housing market area level, there has been a notable increase in the number of households privately renting, particularly in Basildon, Castle Point and Thurrock. Southend-on-Sea has seen a slower growth, although this is likely to reflect the maturity of the borough's rental market. Southend-on-Sea is the only authority not to see a decline in the contribution of the social rented sector, but all authorities have seen a fall in the number of households owning with a mortgage or loan. This reflects the increased challenges in obtaining mortgage finance, with an increased number of households – again, with the exception of those in Southend-on-Sea – owning their property outright.

Current Housing Trends

8.15   Having established the current stock profile of TGSE – and identified recent changes in its composition – it is beneficial to consider how housing in the area is occupied. In particular, key trends around the characteristics of different groups – such as families, younger people and the older population – are important to consider, and these can also be projected forward, as shown later.

Age Profile

8.16   Households of different age groups[175] can occupy housing through different tenures and it is therefore important to consider the prevalent tenures for different age groups across TGSE, drawing on data from the 2011 Census. This is summarised in the following table, with statistics for the five TGSE authorities presented separately in Appendix 6.

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[175] Based on age of households reference person (HRP)

Figure 8.6: Tenure by Age of HRP in TGSE 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented or living rent free
16 to 34	3.4%	40.5%	18.6%	37.4%
35 to 49	8.4%	60.9%	13.5%	17.2%
50 to 64	36.4%	42.2%	12.6%	8.8%
65 and over	70.6%	8.6%	15.2%	5.7%
All Ages	**32.0%**	**38.5%**	**14.5%**	**15.0%**

Source: Census 2011

8.17   This is further illustrated in the following chart.

Figure 8.7: Tenure by Age of HRP in TGSE 2011
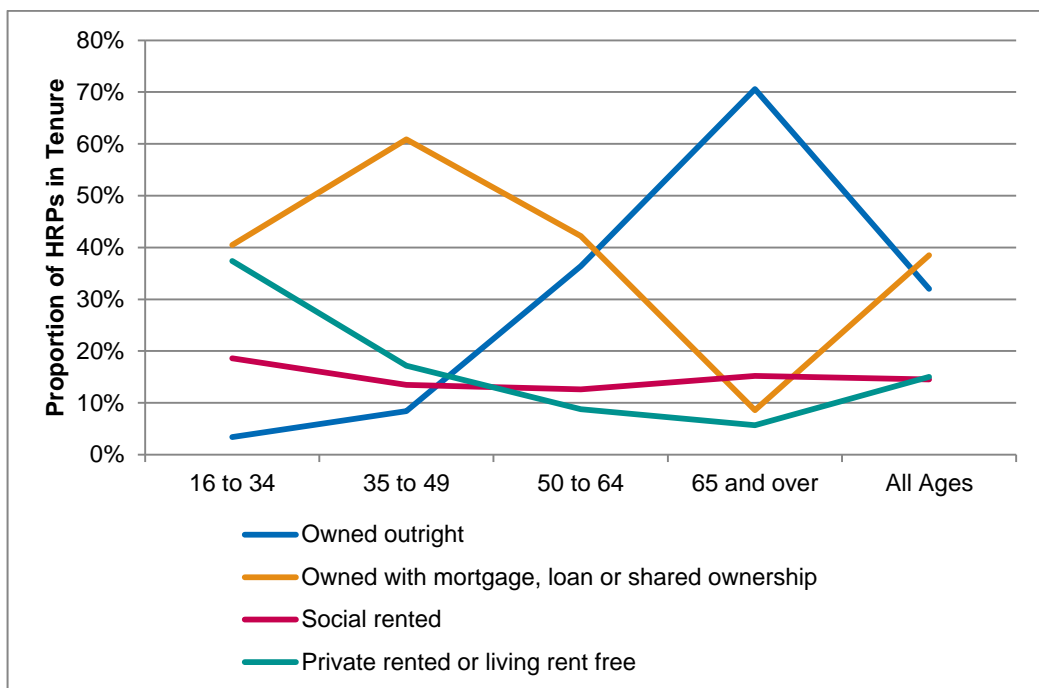
Source: Census 2011

8.18   The table shows that a notably higher proportion of households with HRPs aged over 65 are owned outright, at 70.6%, compared to just 3.4% of HRPs aged 16 to 34 and 8.4% of HRPs aged 34 to 49. Accordingly, the oldest age group (aged 65 and over) represent the lowest proportion of households owned with mortgage, loan or shared ownership at just 8.6% of households, compared to the 35 to 49 age group where over 3 in 5 households, or 60.9%, reside in this tenure. This reflects the fact that older households have been able to pay off their mortgage.

8.19 It is evident that home ownership has a much lower representation within the youngest age group (16 to 34 years) at just 43.9% of households, compared to 69.3% in the 35 to 49 HRP age group, 78.6% of households with the HRP aged 50 to 64 and 79.2% of households with the HRP aged within the oldest age group. This demonstrates the difficulties amongst the younger households in obtaining a mortgage or loan required to access the property market. In addition, the data presented shows a measure of established households and so does not reflect younger residents living within households with older HRPs that are constrained from forming their own household due to unaffordability.

8.20 As a result, an evident proportion of younger households live in the rented tenures - in particular private rented or living rent free. A significant 37.4% of households with a HRP aged 16 to 34 years are privately rented, which is more than double that of the 35 to 49 age group, at 17.2%, and more than quadruple that of the older age groups. Social renting is also slightly more prominent amongst the 16 to 34 age group when compared to the other age groups.

8.21 When considering the five TGSE authorities individually, the statistics highlight that Southend-on-Sea has the greatest proportion of households residing in the private rented tenure or living rent free on average across all age groups, at 23% of households, whilst Rochford has the lowest proportion, at 9% of households. Rochford, however, maintains a high proportion of owner occupied properties, as does Castle Point, with 83% of households residing in the owner occupied tenures in each of these authorities. This is significant when compared to lower proportions of 66% of households being owner occupied in Southend-on-Sea and 67% in both Basildon and Thurrock. Social renting in Basildon represents 22% of households on average across all age groups, which is greater than the other TGSE authorities, where social renting ranges from 5% of households in Castle Point to 18% in Thurrock.

8.22 Census data also shows the type of housing occupied by HRPs in different age groups, and this is summarised for TGSE as a whole in the following table. This shows that flats represent the prevalent type of accommodation occupied for younger households in TGSE. The propensity to occupy this type of housing reduces in subsequent age groups, before increasing for older people. While comparatively few younger households occupy semi-detached and – particularly – detached property, this becomes increasingly popular with age, with the former representing the dominant type of accommodation for all but the youngest households.

Figure 8.8:   Accommodation Type by Age of HRP 2011

	Detached	Semi-detached	Terraced	Flat
16 – 34	8.0%	22.1%	27.1%	42.7%
35 – 44	19.6%	33.1%	27.9%	19.5%
45 – 54	25.2%	34.9%	25.0%	14.9%
55 – 64	28.4%	35.1%	22.5%	14.1%
65 – 74	29.4%	37.5%	18.8%	14.3%
75+	24.3%	39.4%	17.0%	19.3%
All ages	**22.4%**	**33.5%**	**23.6%**	**20.5%**

Source: Census 2011

Household Types

8.23   Households of different types occupy housing in different ways. The 2011 Census provides further information on variation between different household typologies. The following table shows the size of property by different types of households in TGSE, as of 2011. The statistics for the five TGSE authorities are presented separately in Appendix 6.

Figure 8.9:   Number of Bedrooms by Household Type 2011

	Bedrooms				
	1	2	3	4	5+
One person	32%	34%	28%	5%	1%
One family all aged 65+	7%	32%	44%	15%	2%
Married/same-sex civil partnership couple with no children	6%	25%	46%	20%	3%
Married/same-sex civil partnership couple with dependent children	1%	12%	50%	29%	7%
Married/same-sex civil partnership couple with non-dependent children	1%	11%	54%	29%	5%
Cohabiting couple with no children	20%	39%	33%	7%	1%
Cohabiting couple with dependent children	4%	29%	50%	14%	3%
Cohabiting couple with non-dependent children	2%	20%	56%	19%	3%
Lone parent with dependent children	5%	35%	47%	11%	2%
Lone parent with non-dependent children	3%	30%	52%	13%	2%
Other household types	6%	24%	43%	20%	8%
All categories	**13%**	**27%**	**42%**	**16%**	**3%**

Source: Census 2011

8.24   There are a number of notable trends, with smaller properties primarily occupied by one person households and cohabiting couples without children. However, larger properties are typically occupied by married or same-sex civil partnership couples with both dependent and non-dependent children. Lone parents with dependent children typically occupy a slightly smaller size of property relative to families, with 82% of lone parent households occupying 2 bed and 3 bed homes, compared to 63% of married or same-sex civil partnership couples with dependent children. This is likely to reflect the affordability constraints generated by a single income household.

8.25   Further context can be provided by considering the prevalent tenure of different household types. This is presented in the following table.

Figure 8.10: Tenure by Household Type 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented	Living rent free
One person	40%	22%	21%	15%	2%
One family all aged 65+	82%	8%	8%	2%	1%
Married/same-sex civil partnership couple with no children	43%	43%	6%	7%	0%
Married/same-sex civil partnership couple with dependent children	9%	74%	8%	10%	0%
Married/same-sex civil partnership couple with non-dependent children	41%	48%	8%	3%	0%
Cohabiting couple with no children	13%	53%	7%	26%	1%
Cohabiting couple with dependent children	4%	51%	20%	24%	0%
Cohabiting couple with non-dependent children	21%	52%	18%	8%	1%
Lone parent with dependent children	6%	26%	33%	35%	1%
Lone parent with non-dependent children	38%	30%	21%	10%	1%
Other household types	21%	41%	12%	25%	1%
All categories	**32%**	**39%**	**15%**	**14%**	**1%**

Source: Census 2011

8.26   Again, there is a notable variation between different household types. A high proportion of married or same-sex civil partnership couples are owner occupiers, whilst a higher proportion of married or same-sex civil partnership couples without children or with non-dependent children own their home outright, compared to those with dependent children where ownership with a mortgage, loan or shared ownership is greater.

8.27   This differs from the trend for lone parents with dependent children, with these households more reliant on the private and social rented tenures. Cohabiting couples and one person households are also more to reside in these tenures above married or same-sex civil partnership families and families with all residents aged 65 years and over.

Implications for Future Need

8.28 The analysis in this section uses the growth in population and households implied under the upper end of the recommended OAN range to explore how a changing demographic profile might lead to requirements for housing of different types and sizes. This integrates the people-based Experian scenario modelled by Edge Analytics, with core assumptions on economic participation and the headship rate adjustment applied.

8.29 Future trends are predicated upon a continuation of the current housing characteristics of different age groups and household types in TGSE. The approach adopted within this analysis does not seek to estimate how market factors – such as changes to house prices, incomes and household preferences – will impact upon the propensity of households to occupy different types of property. Recognising the volatility in the market over longer term periods, this approach is considered prudent.

8.30 The modelling used to inform the OAN was produced by Edge Analytics prior to the release of Stage 2 data from the 2012 SNHP, which shows the type of households projected to form. This was published by DCLG in December 2015. Stage One outputs have therefore been integrated in the modelling, which show the age of household reference person (HRP) projected to form. This can be considered in the context of trends presented earlier in this section.

Type of Housing Required

8.31 The type of housing likely to be required in the future can be estimated based on the current propensity of households of different ages to occupy different types of accommodation. The earlier analysis has highlighted that younger households, for example, show a greater tendency towards occupying flats, and an increase in the number of younger households could therefore result in an additional demand for this type of property.

8.32 This is summarised in the following table, based on the upper end of the OAN range identified in section 7.

Figure 8.11: Type of Accommodation Required 2014 – 2037

	Detached	Semi-Detached	Terraced	Flat
Basildon	22.0%	28.3%	32.6%	17.1%
Castle Point	43.6%	41.7%	5.5%	9.2%
Rochford	30.5%	49.8%	5.4%	14.2%
Southend-on-Sea	18.9%	32.7%	15.9%	32.5%
Thurrock	12.0%	36.2%	31.2%	20.6%
TGSE	**21.7%**	**35.4%**	**21.5%**	**21.4%**

Source: Turley, 2015

8.33 The assessment implies that there will be a future demand for property of all types across TGSE, with a specific demand for semi-detached housing, based on the

projected growth of households in age groups which typically occupy this type of stock. This is particularly pronounced in Rochford, where over half of additional demand could relate to semi-detached housing. This is primarily driven by the preferences of older households – who are expected to see significant growth – and as in Castle Point, this results in a smaller demand for flatted property.

8.34 This contrasts with Southend-on-Sea, where around a third of additional demand could relate to flats. This reflects the younger demographic of the borough, who are more likely to occupy this type of property, but is also a consequence of the sizeable projected growth in the number of older residents, who also show a tendency towards occupying flatted accommodation. There is a sizeable demand for terraced property in Basildon and Thurrock, although this is likely to at least partially reflect the relative concentration of this type of property within these authorities.

8.35 The earlier analysis showed how the existing housing stock changed over the decade to 2011 across TGSE, and this can be further analysed to understand the extent to which a continuation of recent trends would meet the suggested demand for different types of housing across the area. This is illustrated in the following graph for TGSE as a whole.

Figure 8.12: Future Demand and Recent Historic Supply
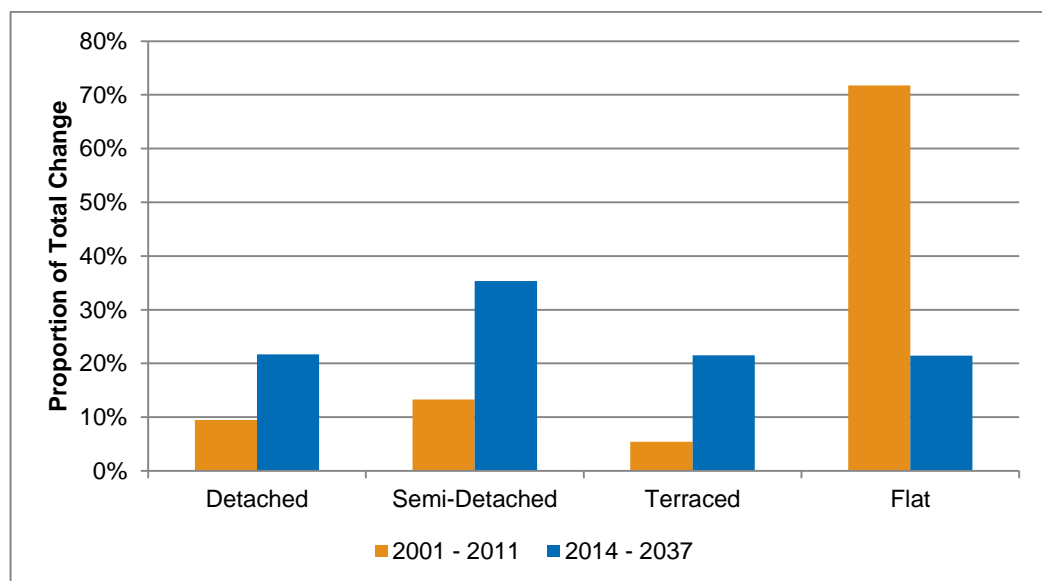
Source: Turley, 2015; Census 2011

8.36 Between 2001 and 2011, some 72% of additional household spaces in TGSE were flats, and should this trend be sustained throughout the plan period, there could be a potential over-provision relative to the levels of suggested demand. Conversely, semi-detached property accounted for only 13% of additional supply over the decade to 2011, and therefore delivery of this type of accommodation will need to increase if this demand is met. This is also apparent for detached stock, although it is important to note that this will incorporate stock which is under-occupied. This demand could therefore be met through provision of new accommodation suitable for downsizing. It is also important to note that this exercise does not take account of potential occupancy trends relating to market factors.

Size of Housing Required

8.37   An assessment can also be made of the size of housing required, again based on the age profile of HRPs in TGSE. This continues to draw upon evidence from the 2011 Census, and assumes that the implied occupancy trends will be sustained over the projection period to 2037. This is summarised in the following table, highlighting a need for property of all sizes to meet demand.

Figure 8.13: Size of Accommodation Required 2014 – 2037

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
Detached						
3 or less	11%	35%	20%	12%	7%	**14%**
4 beds	9%	8%	9%	5%	4%	**7%**
5 or more	2%	1%	1%	1%	1%	**1%**
Semi-detached						
2 or less	10%	22%	23%	12%	9%	**13%**
3 beds	14%	18%	23%	16%	23%	**18%**
4 or more	4%	2%	4%	5%	4%	**4%**
Terraced						
2 or less	11%	2%	3%	4%	9%	**7%**
3 or more	21%	4%	3%	12%	22%	**15%**
Flat						
1 bed	11%	5%	10%	17%	11%	**12%**
2 or more	6%	4%	5%	16%	10%	**9%**

Source: Turley, 2015

Interpretation of Evidence

8.38   It is important to note that this is an indicative exercise which is based on historic evidence in each of the TGSE authorities. In reality, the profile of housing delivered is likely to be driven by the market, which will judge the type of housing most appropriate at any point in time.

8.39   Figures presented in this section should therefore only be used for monitoring purposes, to consider and monitor the balance of housing delivered over the plan period in the context of demographic change. It is recommended that whilst the evidence provides an important indication as to the broad mix of housing to be required policies are not overly prescriptive in directly basing requirements on the illustrative mix presented from the analysis in this section. Careful monitoring will, however, be required to ensure that over a number of years the balance of provision by housing type does not depart significantly from the evidence of housing need. Where a departure is apparent policy interventions should be considered to address identified deficiencies in supply.

Needs of Different Groups

8.40　The NPPF and PPG highlight the importance of specifically considering the needs of different groups when developing housing policy, although it is noted that the needs of every group do not need to be assessed in detail.

8.41　This section therefore considers the specific needs of various groups, drawing upon available secondary data and the outputs of demographic modelling undertaken to inform this report.

Housing for Older People

8.42　As recognised within the PPG, older people typically occupy a broad range of accommodation, including market housing and more specialist accommodation. Prior to considering the implications for future need and its relationship to the overall dwelling requirement, therefore, it is important to introduce a number of key terms relating to older persons accommodation, and its classification within modelling outputs.

8.43　The scenarios developed and presented in this report expect significant growth in the older persons population. The population projection scenario underpinning the upper end of the OAN range concluded in section 7 suggests that the older population will grow considerably over the period to 2037. This is illustrated in the following graph, which shows the growth in older age groups over the projection period at the upper end of the assessed OAN range.

Figure 8.14: Change in Older Age Groups (Experian People) 2014 – 2037
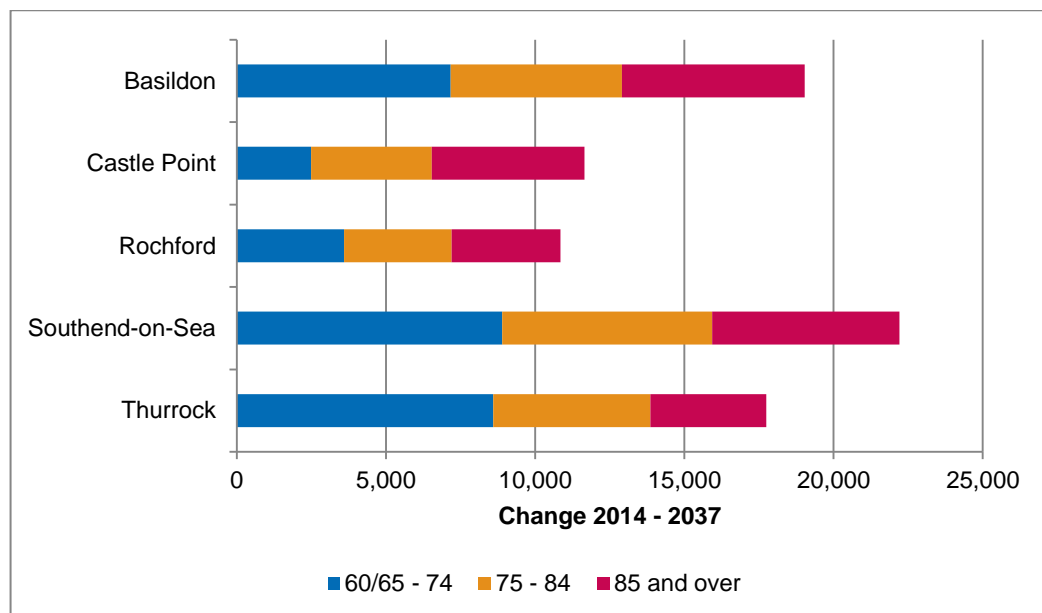
Source: Edge Analytics, 2015

8.44　The growth of approximately 81,500 in older age groups could increase the older persons population by approximately 56% over the projection period, compared to the 2014 population, with the number of older people in Thurrock increasing by around two

thirds (67%). This is likely to impact upon the type of housing required in TGSE, with a need for both specialist and residential care accommodation for older people.

8.45   Looking specifically at types of specialist accommodation for older people, the following can be considered as broadly representative of these options, as drawn from the Age UK[176] and NHS[177] websites:

- **Sheltered housing** – there are many different types of sheltered housing schemes, although as a minimum they should provide 24 hour emergency help through an alarms system and there may also be an on-site scheme manager. Importantly, schemes are generally comprised of self-contained flats or bungalows – typically with between 20 to 40 units – with communal areas often on site. In planning terms, this type of housing is usually categorised as C3 housing, and is not classified as communal establishments;

- **Extra care housing** – this is sometimes referred to as very sheltered housing, or housing with care. This is considered as an intermediate form of accommodation between sheltered and care home housing, and may include converted properties and purpose-built accommodation, such as retirement villages, apartments and bungalows. They can also be large-scale villages with up to 300 properties. Importantly, accommodation is not limited only to older persons, but can accommodate people with disabilities regardless of age. Extra care housing is aimed at providing people with the opportunity to live independently in a home of their own, but with other services on hand if they need them. Accommodation is usually provided in the form of self-contained flats, but meals are provided and individual personal care may also be provided. This suggests that housing of this nature will largely be classified as C3 housing, and will not fall within the definition of communal establishments; and

- **Care homes** – staffed 24 hours a day with meals provided, and often referred to as either residential homes or nursing homes, with the categorisation dependent on the level of nursing care provided. Within this category, it is important to note therefore that the nature of accommodation – and degree of independence – will vary considerably, with the most profound needs met through nursing care. This accommodation type may well be categorised as communal establishments, due to lower levels of self-containment and independence of households, and could therefore fall within the C2 definition. This will depend, however, upon the proportion of accommodation within any particular care home which has its own cooking facilities, as per the ONS definition.

Future Need for Specialist Older Persons Accommodation

8.46   While recognising that many older people will choose to live independently, a number of older residents are likely to require specialist accommodation. The Housing Learning and Improvement Network (LIN) is a leading source of knowledge on housing for older people, with involvement with government, the Homes and Communities Agency and other key professional, public and voluntary bodies. The Strategic Housing for Older People Analysis (SHOP@) tool was published by Housing LIN to show the prevalence

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[176] http://ageuk.org.uk
[177] http://nhs.uk

rates for different types of specialist housing for persons aged 75 and over in different authorities:

- Demand for **125 sheltered housing** units per 1,000 additional 75+ population;

- Demand for **20 enhanced sheltered housing** units per 1,000 additional 75+ population; and

- Demand for **25 extra care units with 24/7 support** per 1,000 additional 75+ population.

8.47 This toolkit has been used to assess the projected need for different types of specialist accommodation, as recommended in the PPG where such toolkits are referenced.

8.48 The Edge Analytics modelling indicates that the number of residents aged 75 and over in TGSE will increase by 50,732 over the period from 2014 to 2037. The modelling assumes that a component of this population lives in communal establishments, although a clear majority are assumed to live in private households. The number of residents aged 75 and over living in households is projected to grow by 47,278 over the projection period.

8.49 The established need for specialist housing inputs the projected change in the private household population aged 75 and over, and this is therefore included within the objectively assessed need derived from these scenarios. This is separate to the growth in the communal population, considered in further detail later in this section.

8.50 The additional demand for different types of accommodation at the either end of the range of objectively assessed needs concluded in section 7 is presented in the following table.

Figure 8.15: Projected Need for Specialist Housing 2014 – 2037

	Basildon	Castle Point	Rochford	Southend-on-Sea	Thurrock	TGSE
Upper end of range – core economic activity assumptions						
Sheltered housing	1,380	1,054	872	1,520	1,084	5,910
Enhanced sheltered housing	221	169	140	243	173	946
Extra care – 24/7 support	276	211	174	304	217	1,182
Total	**1,877**	**1,434**	**1,186**	**2,067**	**1,474**	**8,038**
Annual	82	62	52	90	64	349
Lower end of range – SNPP London						
Sheltered housing	1,326	979	819	1,438	1,057	5,620
Enhanced sheltered housing	212	157	131	230	169	899
Extra care – 24/7 support	265	196	164	288	211	1,124
Total	**1,804**	**1,332**	**1,114**	**1,956**	**1,438**	**7,644**
Annual	78	58	48	85	63	332

Source: Turley, 2015; Housing LIN, 2015; Edge Analytics, 2015

8.51   This suggests that the projected growth in the older population could generate a need for between 330 – 350 additional specialist older persons accommodation units annually in TGSE, with a total need for approximately 7,650 – 8,050 units over the full projection period. It is, however, recognised that local authorities' respective housing strategies may seek to meet this implied institutional need through both social and market housing, designed to cater for older persons' needs. This can reflect Councils' housing and social strategies which seek to promote independent living for older people.

Future Need for Older Persons Residential Care Accommodation

8.52   As of 2011, the Census highlights that there were 3,360 residents in communal establishments in TGSE who were aged 65 and over. This age group accounts for 72% of communal establishment residents in the area, and the following table summarises the type of communal establishments occupied by these older residents. This shows that the majority are living in residential care homes.

Figure 8.16: Communal Establishment Residents (65+) by Type 2011

	Total	%
All usual residents in communal establishments	**3,360**	–
Medical and care establishments – NHS	62	1.8%
Medical and care establishments – local authority	83	2.5%
Medical and care establishments – RSL/HA	30	0.9%
Medical and care establishments – care home with nursing	657	19.6%
Medical and care establishments – care home without nursing	2,420	72.0%
Medical and care establishments – other	82	2.4%
Other establishments or not stated	26	0.8%

Source: Census 2011

8.53 In addition to the need for specialist housing for older people, the PPG also states that the need for additional residential care accommodation in Use Class C2 should be considered. This represents a direct output of the modelling produced by Edge Analytics, which shows change in the number of people aged 75 and over who are expected to be living in some form of institutional housing. This is separate to the private household population, which is converted into household numbers which form the basis for assessing housing need. **Growth in the communal population is therefore separate to the objective assessment of need set out in section 7 of this report, or the additional demand for specialist accommodation set out in Figure 8.15**.

8.54 When treating the communal population, Edge Analytics adopt an approach which is consistent with DCLG, specifically:

- For all ages up to 74, the number of people in each age group that are not in households is recorded at the start of the projection period[178]; and

- For ages 75 and over, the *proportion* of the population that are not in households is recorded as a percentage. Therefore, the population that are not in households in these age groups varies across the forecast period, depending on the size of the population.

8.55 Consequently, modelled growth in the communal population will be made up entirely of older age groups aged 75 and over, with the younger age component fixed. The following table summarises the modelled change in the communal population over the projection period, at both the upper and lower end of the range of objectively assessed needs.

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[178] Sourced directly from DCLG household projections, referred to as the 'institutional population' and taken from the 2011 Census

Figure 8.17: Change in Communal Population 2014 – 2037

	Lower end of range	Upper end of range
Basildon	783	826
Castle Point	677	726
Rochford	261	276
Southend-on-Sea	1,073	1,151
Thurrock	457	475
TGSE	**3,251**	**3,454**

Source: Edge Analytics, 2015

8.56   Housing delivery within the range of objectively assessed needs could increase the size of the communal population by 3,251 – 3,454 persons over the projection period to 2037. All of this growth is attributable to older people aged 75 and over, and – as this growth relates to individual persons – this indicates that there will be an increased need for a comparable number of bedspaces in communal establishments in TGSE over the projection period.

8.57   There is no specific methodology for translating this growth in population and therefore bedspaces into a need for individual residential care home establishments, with these differing in size and nature. When comparing the supply of new additional extra care (C2) accommodation advanced through new planning proposals it is therefore important to compare the number of bedspaces planned to be delivered against the level of need identified in Figure 8.17.

Households with Specific Needs

8.58   The PPG suggests that households with specific needs should be separately considered[179], although it is also acknowledged that there is no single data source outlining the number of people who require adaptations to their home, either now or in the future.

8.59   Data published by the Department of Work and Pensions (DWP) shows the number of people claiming Personal Independence Payments (PIP) in each of the TGSE authorities, as of July 2015. As summarised in the following table, this indicates that there was a caseload of 4,100 claimants, of which around 43% received an enhanced daily living reward and 27% received an enhanced mobility award.

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[179] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_021

Figure 8.18: Personal Independence Payment Caseload – July 2015

	Caseload	Enhanced daily living award	Enhanced mobility award
Basildon	**1,186**	44.4%	26.3%
Castle Point	**503**	42.1%	28.8%
Rochford	**340**	42.1%	30.0%
Southend-on-Sea	**1,135**	43.4%	28.4%
Thurrock	**936**	38.6%	26.0%
TGSE	**4,100**	**42.3%**	**27.3%**

Source: DWP, 2015

8.60   The Census is also recommended as an appropriate data source, given that it shows the number of people with long-term limiting disabilities or illnesses in 2011. It is noted within the PPG that not all people counted under this dataset will require adaptations to the home, however, and those residents aged 75 and over have been excluded from this analysis given that their needs have been identified in the earlier analysis.

8.61   The scale of growth projected in different age groups is likely to increase the number of residents with support needs in TGSE, based on existing proportions of residents in different age groups who are limited in their daily activities. Change over the projection period is presented in the following table.

Figure 8.19: Modelled Growth in Private Household Residents with Support Needs 2014 – 2037

	Change in residents with support needs			Total change 2014 – 2037
	15 and under	16 to 59/64	60/65 – 74	
Basildon	189	1,144	2,544	3,877
Castle Point	72	154	853	1,078
Rochford	86	249	1,086	1,421
Southend-on-Sea	215	1,062	3,098	4,375
Thurrock	244	1,435	3,323	5,002
TGSE	**806**	**4,043**	**10,905**	**15,754**

Source: Census 2011; Turley, 2015

8.62   Based on current prevalence rates, the growth in the population aged 74 and under will result in an increased number of residents who are limited in their daily activities. Based on existing prevalence rates, the number of people with support needs could increase by approximately 15,750 over the projection period, at the upper end of the OAN range identified in the previous section. This falls to approximately 13,200 at the lower end of

the range. These households are included within the objective assessment of need given that they are assumed to continue to occupy private housing.

8.63   This growth is entirely attributable to people living in households – rather than communal establishments – and such residents will therefore require support in their own homes and/or adaptation. The recent household survey in Thurrock shows that many households with support needs receive support from a family, friend or neighbour (75%), rather than a registered care agency or voluntary body, although comparable evidence is not available for other authorities in TGSE. This is likely to generate a need for adaptations, including bathroom adaptations and access and mobility improvements.

8.64   Data provided by the Councils shows that Disabled Facilities Grants (DFG) play an important role in adapting homes in TGSE to meet households' needs. This data has been standardised by Turley, in order to establish the number of adaptations in broad categories which have been granted in each authority on an annual basis. The data shared to inform this study indicates that approximately 600 adaptations occur annually in TGSE, of which the majority relate to bathroom adaptations and a substantial proportion include improvements to internal access arrangements, such as stair lifts. This is summarised in the following table.

Figure 8.20: Annual Disabled Facilities Grant Adaptations

	Bathroom	Extension/ conversion	External access	Internal access	Kitchen
Basildon	73	3	2	44	1
Castle Point	131	9	25	25	1
Rochford	42	2	7	15	1
Southend-on-Sea	71	1	8	28	2
Thurrock	59	7	6	34	0
TGSE	**376**	**22**	**48**	**146**	**5**
%	63%	4%	8%	24%	1%

Source: Council monitoring data

People Wishing to Build their Own Homes

8.65   The NPPF – in expecting authorities to have a clear understanding of housing needs in their area – states that need should be addressed for all types of housing, including people wishing to build their own homes. This is also recognised in the PPG, which states that local authorities should plan to meet the strong demand for such housing[180].

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[180] http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_021

8.66 Two approaches are commonly recognised. Self-build involves a person directly organising the design and construction of their home, while custom build is where a person works with a specialist developer to deliver their own home[181].

8.67 'Laying the Foundations: a Housing Strategy for England' provides useful national context in relation to both self-build and custom build[182]. The strategy states that, in 2011, over 100,000 UK residents were looking for building plots across the country, with around one in ten new homes custom built. This is considerably lower than in many other European countries, and recent figures suggest that – while there is demand – there are relatively few self-build homes in the UK, with just 8,235 delivered in 2013 – a fall of 22% since 2010[183]. However, as many as half of people nationally would consider building their own home if they were able to do so[184].

8.68 This suggests that, despite apparent demand, there are a number of factors restricting the potential of this sector, including limited finance and mortgage products, restrictive regulation, a lack of impartial evidence and – crucially – land. A lack of available land means that self-building often involves knocking down properties and rebuilding, with custom build therefore not increasing the housing stock as much as it could[185].

8.69 In response to this, the 2014 Budget introduced the government's planned Right to Build, which gives custom builders a right to a plot from local authorities. A £150 million repayable fund has been made available to help provide up to 10,000 serviced plots for custom build[186]. Following a consultation, the Self-Build and Custom Housebuilding Act received Royal Assent in 2015, providing the legislative framework for the first part of Right to Build. From 1 April 2016, this requires local authorities to establish local registers of custom builders wishing to acquire suitable land to build their own home, and local authorities should have regard to demand from this local register when exercising planning functions[187]. This will provide a valuable future mechanism for monitoring demand for self-build and custom build housing across TGSE, which should be used in the development of Local Plans.

8.70 At the time of writing, in the absence of such registers – which will provide the most comprehensive evidence of local demand for self-build and custom build plots – the PPG suggests that alternative sources can be used. The Need-a-Plot website operated by the Self Build Portal allows individuals or groups[188] to express their interest in a building plot in a specific location. This highlights some demand for plots across the area.

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[181] The Self Build Portal – http://www.selfbuildportal.org.uk
[182] HMGovernment (2011) Laying the Foundations: a housing strategy for England
[183] Based on number of people claiming VAT relief on self-build homes – Parliamentary Answer to Hilary Benn MP, May 2014
[184] HMGovernment (2011) Laying the Foundations: a housing strategy for England
[185] http://www.self-build.co.uk/blog/more-plots-required-self-building
[186] HMGovernment (2014) Budget
[187] DCLG (2016) Self-build and Custom Housebuilding: draft planning practice guidance
[188] Groups shown in orange, individuals shown in green, 'group or solo' shown in grey

Figure 8.21: Need a Plot – Expressions of Interest in Essex

Source: Self Build Portal, 2015

8.71 This can also be supplemented by other local evidence. The recent household survey in Thurrock, for example, showed that around 43% of existing households (2,870 implied households) and 30% of concealed households (1,146 implied households) planning a move within the borough would be interested in planning and constructing their own home. The majority of these households would be interested in refurbishing an empty property and bringing it back into use as housing. Only a comparatively small proportion of households had the funds immediately available to purchase a plot of land, however, suggesting that finance could restrict households from meeting their needs through this option.

Summary

8.72 Responding to the PPG, this section has considered the size and type of housing required under the upper end of the OAN range identified in section 7. This is considered initially by understanding the existing profile of the housing stock in TGSE, which closely follows the national trend, although Rochford and particularly Castle Point have a greater concentration of detached and semi-detached housing. Southend-on-Sea, in contrast, has a greater proportion of flats, while Thurrock and Basildon are characterised by large amounts of terraced property. Flats have represented the main area of growth over the decade to 2011, however, with the supply of flats increasing by around 24% over this period.

8.73 There have also been recent changes in tenure trends, with a sizeable increase in the number of households renting their home from a private landlord or agency. This tenure is particularly prominent amongst younger households, with ownership becoming increasingly popular with age. Similarly, younger people show a preference towards flatted properties – which may be shaped by the relative affordability of this type of

housing – with households in subsequent age groups more likely to occupy detached and semi-detached housing.

8.74 The modelling presented throughout this report – and in Appendices 2 and 3 – indicates that the demographic profile of TGSE will change over the period to 2037, and this will shape future demand for different types and sizes of property. This can be estimated using 2011 Census data, but does not seek to estimate how market factors – such as changes to house prices, incomes and preferences – will impact upon these trends.

8.75 This suggests that there will be a future demand for property of all types and sizes across TGSE, with a specific demand for semi-detached housing given anticipated growth in age groups which typically occupy this type of housing. This is particularly pronounced in Rochford and Castle Point, where there is expected to be more limited demand for flats. This contrasts with Southend-on-Sea, where around a third of additional demand could be met through provision of flats. Whilst flats have represented a significant proportion of recent supply across TGSE, it is evident that a continuation of this recent trend could lead to an over-provision of flats relative to the suggested levels of demand. This does not take account of potential occupancy trends relating to market factors, however.

8.76 The PPG and NPPF also highlight the importance of considering the specific housing needs of different groups. The number of older people in TGSE, for example, is expected to grow considerably, which is likely to impact upon the type of housing required in TGSE. Whilst recognising that many older people will choose to live independently, this growth could also generate an additional demand for specialist housing, and the application of prevalence rates published by Housing LIN suggests that this growth could generate a need for 330 – 350 additional specialist housing units annually over the projection period to 2037. This includes sheltered housing and extra care housing, the provision of which will contribute towards the objective assessment of need. Outside of the objective assessment of need, however, is an assumed increase in the communal population in the modelling by Edge Analytics, which is entirely attributable to people aged 75 and over. This indicates that there will be an additional need for approximately 3,400 communal bedspaces over the projection period.

8.77 This section has also considered the housing required by households with specific needs, with the Census showing that a proportion of the existing population in TGSE are limited in their daily activities and therefore require support. The modelling suggests that the number of people with support needs could increase by approximately 13,200 – 15,750 over the projection period at the lower and upper ends of the OAN range presented in section 7. These households are assumed to occupy private housing, given that the modelling does not allow for growth in the number of people aged 74 and under living in communal establishments. This could generate a requirement for home support and/or adaptations, with Council data indicating that approximately 600 Disabled Facilities Grant adaptations occur annually in TGSE.

8.78 The PPG also suggests that the needs of households looking to build their own homes should be considered, with Government seeking to encourage this form of housing provision. There are a number of factors restricting the potential of this sector, although a fund has recently been made available to support the provision of serviced plots whilst

the Self-Build and Custom Housebuilding Act provides the legislative framework for the Right to Build, which gives custom builders the right to a plot from local authorities. Local authorities are expected to establish local registers of custom builders wishing to acquire suitable land, which will provide a valuable future mechanism for monitoring demand for such housing across TGSE which should be taken into account in plan making.

9. Conclusions

9.1   Turley – in partnership with specialist demographic consultancy Edge Analytics – were commissioned by the Thames Gateway South Essex (TGSE) authorities of Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock to prepare a Strategic Housing Market Assessment (SHMA). The assessment has sought to define the housing market area (HMA) geography, establish the full objectively assessed need (OAN) for housing across TGSE and identify the implications for the different types and sizes of housing needed in the area.

9.2   The SHMA has sought to ensure that the evidence prepared complies with the NPPF and PPG, as well as the subsequent interpretation of these documents through recent case law and Inspectors' decisions. It is recognised that guidance and interpretation will continue to be updated, potentially impacting upon the conclusions of this report. It will be important for the TGSE authorities to continue to monitor the evidence, in the context of future changes to guidance and the release of new national and local datasets.

Housing Market Area

9.3   The PPG highlights the importance of considering housing needs across housing market area (HMA) geographies, recognising that this often extends beyond local authority boundaries. Section 2 of this report includes analysis of a range of spatial indicators – as per the PPG – to determine the extent to which TGSE represents a single HMA.

9.4   The evidence strongly supports the conclusion that TGSE continues to represent a single housing market area, in line with the PPG. This reflects a strong containment of migration moves within the area, with 73% of people moving from an address within these authorities remaining within the wider geography, according the 2011 Census. Analysis of house prices also shows a broad commonality across TGSE, and a marked distinction with adjacent areas including London in particular.

9.5   Analysis of commuting relationships also indicates a strong level of containment, with around 65% of people living in TGSE also working in the area. It is apparent that within TGSE, the larger centres of Basildon and Southend-on-Sea represent important local employment centres which attract strong levels of in-commuting. The analysis does also highlight the relationship with London as a prevalent place of work for residents of TGSE, with this influenced by strong infrastructure connections and the availability of employment opportunities.

The Full Objective Assessment of Housing Need

9.6   As set out in section 1 of the SHMA, the objective assessment of need should follow a recognised stepped methodology, in compliance with the NPPF and PPG. The PPG identifies the latest up-to-date household projections – the 2012 sub-national household projections (SNHP) – as the 'starting point' for the estimate of overall housing need. Following the PPG methodology, the level of projected housing need suggested by these projections should, however, be adjusted to reflect:

- Local demographic factors and evidence, recognising that the household projections may require adjustment to reflect factors affecting local demography and household formation;

- The need to support economic growth based upon an assessment of likely future job growth; and

- The need to take account of appropriate market signals, including market indicators of the balance between the demand for and supply of dwellings and consideration of the calculated need for affordable housing.

9.7 Drawing upon the analysis presented throughout the preceding sections in the SHMA, this methodological stepped process is applied to derive a considered and evidenced position as to the likely OAN for the TGSE and each of the constituent local authorities.

9.8 The application of the PPG methodology in section 7 concludes that there is an objectively assessed need for between **3,275 and 3,750 dwellings per annum** across TGSE over the projection period from 2014 to 2037. This would represent a significant boost in supply compared to recent levels of development, as advocated by the NPPF.

9.9 This level of need reflects a strong projection of population and household growth in the area, above the national growth implied in the latest 2012 SNPP and SNHP datasets. It also recognises the need to respond to evidence of worsening market signals within the area, and an identified sustained need for affordable housing. The range also allows for a level of flexibility to accommodate forecast strong employment growth within TGSE over the projection period.

9.10 The evidenced high need for affordable housing across the TGSE as well as historic evidence of strong levels of job growth suggests that weight should be placed upon the upper end of the OAN range in the consideration of the translation of evidence into housing policies through Local Plans and the assessment of housing land supply.

Implications for the need for different types, sizes and specific requirements for housing

9.11 After arriving at a recommended OAN, the PPG requires consideration to be given to the size and type of housing required. This has been estimated in section 8 based on the modelled change in the demographic profile of TGSE, which will shape future demand for different types and sizes of property. This suggests that there will be a future demand for property of all types and sizes, with a specific demand for semi-detached housing. There will also be a future demand for flats, although a continuation of recent levels of supply could result in an over-provision of flats relative to the suggested levels of demand.

9.12 There will also be a specific need generated by older people in TGSE, with this age group expected to grow considerably over the projection period. This growth could generate a demand for specialist housing, based on estimated prevalence rates, resulting in a suggested need for 330 – 350 additional specialist housing bedspaces annually over the projection period to 2037. This includes sheltered and extra care housing, and provision of this type of accommodation will contribute towards the

objective assessment of need. Outside of the OAN, however, is an assumed increase in the communal population in the modelling by Edge Analytics, which is not converted into private dwellings. This is entirely attributable to people aged 75 and over, indicating that there will be an additional need for approximately 150 communal bedspaces annually over the projection period in addition to the identified OAN.

9.13 The analysis in section 8 also highlights that there is likely to be an increase in the number of people with support needs in TGSE, with approximately 13,200 – 15,750 additional residents who are limited in their daily activities. Within the modelling, these households are assumed to occupy private housing, given that growth in communal establishments is limited to those aged 75 and over. This could generate a need for home support and/or adaptations over the period to 2037.

9.14 Consideration is also given to the needs of households looking to build their own homes, with the Government promoting the growth of this sector and implementing a new Right to Build, which gives custom builders the right to a plot from local authorities. Local authorities are expected to establish local registers of custom builders wishing to acquire suitable land, which will provide a useful future mechanism for monitoring demand for such housing across TGSE which should be taken into account in developing respective Local Plans.

Glossary

Affordable housing – social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market. Eligibility is determined with regard to local incomes and local house prices. Affordable housing should include provisions to remain at an affordable price for future eligible households or for the subsidy to be recycled for alternative affordable housing provision

Affordable rent – affordable rented housing is let by local authorities or private registered providers of social housing to households who are eligible for social rented housing. Affordable rent is subject to rent controls that require a rent of not more than 80% of the local market rent (including service charges, where applicable)

ASHE – Annual Survey of Hours and Earning

Bedroom standard – introduced in Housing (Overcrowding) Bill, and allocates a separate bedroom to a person living together with another as husband or wife; a person aged 21 years or more; two persons of the same sex aged 10 years to 20 years; two persons aged less than 10 years, irrespective of sex; two persons of the same sex where one person is aged between 10 years and 20 years and the other is aged less than 10 years; and any person aged under 21 years in any case where he or she cannot be paired with another occupier of the dwelling so as to fall within earlier classifications

Communal population – people residing in communal establishments, rather than a private household

Commuting ratio – balance of inward and outward commuting, such that a ratio of less than 1 indicates that an area is a net importer of labour (ie more jobs than workers) and a ratio of more than 1 indicates that an area is a net exporter of labour (ie more workers than jobs)

Concealed family – a family living in a multi-family household in addition to the primary family

Containment – the proportion of migrants or commuters who stay within the authority when they migrate or travel to work

DCLG – Department for Communities and Local Government

Double jobbing – employed people undertaking more than one job

Dwelling – a dwelling is a unit of accommodation in which all rooms, including the kitchen, bathroom and toilet are behind a door that only that household can use. A dwelling may comprise one or more household spaces

DWP – Department for Work and Pensions

Economic activity – a person is deemed economically active if they are either in employment, or not in employment but seeking work and ready to start work within two weeks, or waiting to start a job already obtained

EDNA – Economic Development Needs Assessment, to be commissioned to assess economic needs in South Essex

EEFM – East of England Forecasting Model

FALP – Further Alterations to the London Plan, made and adopted in March 2015

Headship rates – also referred to as household representative rate or household formation rate. The probability of anyone in a particular demographic group being classified as being a household representative, and can take any value between 0 and 1

Help to Buy Equity Loan – allows purchasers to obtain a mortgage for 75% of the purchase price of a new build home, with a 5% cash deposit and a 20% equity loan from the Government

Household – one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room, sitting room or dining area

Household space – the accommodation used or available for use by an individual household

Housing market area (HMA) – a geographical area defined by household demand and preferences for all types of housing, reflecting the key functional linkages between places where people live and work

Intermediate housing – homes for sale and rent provided at a cost above social rent, but below market levels subject to the criteria in the Affordable Housing definition above. These can include shared equity (shared ownership and equity loans), other low cost homes for sale and intermediate rent, but not affordable rented housing

Internal migration – movement within the country

International migration – movement to and from a different country

Local Enterprise Partnership – a body, designated by the Secretary of State for Communities and Local Government, established for the purpose of creating or improving the conditions for economic growth in an area

Lower quartile – value that divides an ascending dataset into four and returns the lowest value. Used in this assessment to represent a mid-point of the lower half of the housing market

Market housing – property available for sale or rent where prices are set in the open market

Mean – the result obtained by adding together numerical values and then dividing this total by the number of values, in order to achieve an average rate. Used in this assessment to take account of all values in a dataset

Median – the value at the mid-point of an ascending dataset, such that there is an equal probability of the true value falling above or below it. Used in this assessment to represent the mid-point of the market, irrespective of outlying values which are extremely high or low

MYE – mid-year population estimates, published annually by ONS to estimate the population of each local authority in the UK

Natural change – total births minus total deaths

Net dwelling completions – the number of dwellings completed, net of loss of dwellings

Net migration flow – inmigration minus outmigration. A positive figure indicates that there is net inmigration, with a negative figure indicating net outmigration

NPPF – National Planning Policy Framework

OAN – objective assessment of need

Older people – people over retirement age, including the active, newly-retired through to the very frail elderly, whose housing needs can encompass accessible, adaptable general needs for those looking to downsize from family housing and the full range of retirement and specialised housing for those with support or care needs

OBR – Office for Budget Responsibility

ONS – Office for National Statistics

Overcrowded – a household with an occupancy rating of -1 or less. Occupancy ratings provide a measure of whether a household's accommodation is overcrowded or under-occupied, with the number of bedrooms required (based on a standard formula) subtracted from the number of rooms present

People with disabilities – people have a disability if they have a physical or mental impairment, and that impairment has a substantial and long-term adverse effect on their ability to carry out normal day-to-day activities. These persons include, but are not limited to, people with ambulatory difficulties, blindness, learning difficulties, autism and mental health needs

POPGROUP – a family of demographic models that enables forecasts to be derived for population, households and the labour force, for areas and social groups. The main POPGROUP model is a cohort component model, which enables the development of population forecasts based on births, deaths and migration inputs and assumptions. Further detail on the POPGROUP methodology is included in Appendix 4

PPG – Planning Practice Guidance, published by DCLG

Room standard – relates the actual number of rooms to the number of rooms 'required' by the members of the household, based on an assessment of the relationship between household members, their ages and gender. Section 325 of the Housing Act 1985 states that two persons of opposite sexes who are not living together as husband and wife should not sleep in the same room, although children under the age of ten are left out of account and both bedrooms and living rooms are available as sleeping accommodation provided that this is normal in the locality

RSS – Regional Spatial Strategy – regional level planning frameworks for the regions of England outside London, now revoked

Shared ownership – allows purchasers who meet low income criteria to typically buy between 25 – 75% of the equity of a property, paying rent on the rest

SNHP – sub-national household projections, published by DCLG

SNPP – sub-national population projections, published by ONS

Social rented housing – housing owned by local authorities and private registered providers (as defined in section 80 of the Housing and Regeneration Act 2008), for which guideline target rents are determined through the national rent regime. It may also be owned by other persons and provided under equivalent rental arrangements to the above, as agreed with the local authority or with the Homes and Communities Agency

Starter Homes – new homes offered to younger people at a minimum 20% discount to the market price, with the discount price no more than £250,000 outside London

Travel to work area (TTWA) – area defined by ONS within which at least 75% of the area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area. The area must also have an economically active population of at least 3,500. However, for areas with a working population in excess of 25,000, self-containment rates as low as 66.7% are accepted as part of a limited 'trade-off' between workforce size and level of self-containment

Under-occupied – a household with an occupancy rating of +1 or more. Occupancy ratings provide a measure of whether a household's accommodation is overcrowded or under-occupied, with the number of bedrooms required (based on a standard formula) subtracted from the number of rooms

Unemployment – a person is defined as unemployed if he or she is not in employment, is available to start work in the next 2 weeks and has either looked for work in the last 4 weeks or is waiting to start a new job

Unattributable population change (UPC) – population effect of rebasing MYEs between 2001 and 2011 Censuses following publication of the latter, in order to ensure the correct transition of the age profile over the decade

VOA – Valuation Office Agency

Appendix 1: Stakeholder Comments and Responses

Stakeholder Workshop 1 – March 2015

In March 2015, a stakeholder workshop was held to present attendees with an overview of the methodology to be used in the study, and the initial outputs relating to the definition of the housing market area, market signals and population and household projections. Points raised during and following the event are summarised below.

Defining the Housing Market Area

- Noted the importance of taking the 'London effect' into account, by considering the current spatial relationship with London and the potential future implications if London cannot meet its housing needs or continues to see significant growth in employment. This could have implications for house prices, commuting patterns and migration trends, and informed the development of an additional London-based scenario by Edge Analytics

- Clarification regarding the extent to which the SHMA will develop sub-area geographies, and it was confirmed that the SHMA would not develop sub-areas but would instead focus analysis on the TGSE housing market area and its five constituent authorities, with the use of GIS mapping where appropriate to highlight spatial trends

- Several comments highlighted the importance of recognising that different parts of TGSE perform different roles within the wider geography. Noted that spatial variation between the authorities would be drawn out within the analysis based on the evidence in the report, in order to ensure that the report reflects the differences between authorities

- One attendee queried the implications of the emerging housing market area geography definition for Dunton Garden Suburb, given that this lies between housing markets. On this basis, it is likely that the settlement will meet needs from both geographies, but it is suggested that this remains a subject of continuing discussion between the relevant authorities

Demographic Factors

- Some attendees suggested that the 2012-based household projections should be further interrogated – with potential for sensitivities based on implied household formation rates – and some also questioned why population projections were used when household projections are identified as the 'starting point' within the PPG. The timing of the stakeholder event only two weeks after publication of the 2012-based household projections resulted in the presentation of only a limited amount of information from this new dataset. Noted that the new dataset would form the 'starting point' in the assessment of housing need within the SHMA, and would be fully interrogated with further consideration of the underlying population inputs and the assumptions around household formation

- Recognised that the 2012-based population projections are nationally underpinned by a relatively low level of net international migration, compared to the levels which have

been seen since 2012. This was the subject of further interrogation and sensitivity modelling by Edge Analytics

- Query regarding the potential development of a pre-recession scenario, the merits of which were subsequently considered by Turley and Edge Analytics. Following detailed demographic analysis and in the context of the analysis of considering the alignment between population change and employment growth forecast, this was not considered appropriate

- Several attendees felt that it was particularly important to consider the impact of the ageing population, with the potential implications for the type of housing required established. Noted that the SHMA would break down the modelling to understand the types of households projected to grow, and the subsequent implications for the size of property required. This can assist in ensuring that future supply is matched with the projected change in the profile of households in TGSE, with the specific needs of older people also separately considered

Affordable Housing

- Query regarding what is available as affordable need, which is considered to fall outside of the scope of the SHMA. The Councils will further consider delivery factors through assessments of viability, and the setting of targets on affordable housing delivery. The SHMA acknowledges that the delivery of affordable housing can be influenced by factors other than need, such as delivery mechanisms and the availability of finance and funding

- The potential role of intermediate housing (affordable rent, shared ownership etc) was noted, with the SHMA including information on the relationship between income and the cost of accessing different housing products, including sub-market rents at various rates

Miscellaneous

- Recognition of the potential future impact of Government policies. The SHMA recognises that the assessment is taking place at a point in time, and that future need for housing could be shaped by Government policies. Reference is made where appropriate to emerging policies which are likely to have either direct or indirect implications for the SHMA and its assessment of housing need, and the impact of recently introduced policies will be considered where data is available. The impact of welfare reforms on affordable housing, for example, is considered, drawing upon published secondary evidence and feedback from stakeholder workshops. Furthermore, the SHMA references how the future expansion of Right to Buy could have implications for the available supply of social rented stock, which will directly impact the calculation of affordable housing needs given that this is largely based on historic data. It will, however, be the responsibility of the Councils to monitor the implementation of future Government policies, and ascertain whether this is likely to have a significant impact on the conclusions of the SHMA

- Attendees queried how backlog is considered within the SHMA. The development of variant demographic projections is intended to highlight the impact of constraints on shaping need. The historic rate of development against plan targets is also identified as a market signal within the PPG, and as such the recent rate of development – and its alignment with planned targets – is examined within the SHMA. Where a significant

backlog has accumulated, this can provide justification to adjust the 'starting point', either through considering longer term demographic trends or adjusting household formation rates. Within the affordable housing needs assessment, the calculation of the backlog represents a central part of the calculation, with the current backlog balanced against committed supply to establish the amount of affordable housing needed to clear the backlog. This is assumed to be cleared within the first five years of the plan period, in line with the PPG

Stakeholder Workshop 2 – September 2015

The second workshop followed a similar format to the first workshop, with draft findings from the study presented in full and a series of targeted sessions used to obtain feedback. Comments raised in relation to different stages of the assessment are summarised below, and were taken into account in finalising the report.

Defining the Housing Market Area

- Interest in the illustration of migration flows in the presentation, with the comparative analysis of commuting also providing valuable context. The importance of understanding the roles of regional employment nodes such as Southend Airport was highlighted

- Surprise at the comparatively tight definition of the Travel to Work Area in TGSE, as it was assumed that London would have a bigger impact given the comparatively strong train connections and the relative affordability of housing in TGSE. It was suggested that this could be driven by families where one person works in central London, with others working locally, and it was also suggested that the geographic effect of London is growing and is important to consider

- Transport infrastructure could affect market geographies in future, with investment in Crossrail potentially impacting north/south relationships from London. The Lower Thames Crossing could also have an effect, in providing access and time savings for a wider population, while technological advancements including high speed broadband enable people to migrate to cheaper housing locations without changing their place of employment

- The definition of the housing market area was broadly accepted across stakeholder groups, although some questioned its definition given that there was also a wider pull across a more extensive geographic area in reality. Some attendees questioned whether Brentwood could fit into the housing market area

- Suggested that it would be beneficial to more fully understand the profile of people moving from London, including age profile and types of household, and it was suggested that this is at least partially driven by affordability, resulting in lower income families migrating to TGSE

- Suggested that commuting distance, house prices and the cost of train travel could be compared to establish relationship, with identified 1 hour commuting distances from main centres or transport hubs potentially providing useful context. The cost of travel was likely to be a factor in the operational housing market area, with travel prices generally cheaper travelling towards London rather than away from London. Question

raised regarding whether people commute long distances due to a shortage of suitable homes, or whether there were additional factors shaping this trend

- House price differentials likely to be a key factor in the relationship between London and TGSE, with this likely impacting upon the supply of affordable housing and deliverability over the longer term. This could be impacted by the future supply of housing in London, with an expected skew towards higher density and private rented housing. A flat in London could have a comparable price to a larger property in TGSE, potentially attracting commuters to the area, while some felt that housing demand pressures in London were being driven by international markets

- Some felt that quality of life can be perceived as better in TGSE – particularly in relation to schools and open space, for example – which can generate demand. This could, however, deter people from moving to parts of TGSE where school facilities are comparatively poor

Demographic Factors

- Surprise that the latest 2012-based sub-national population projections expects a comparatively negative picture for international migration, with agreement that a surge in international migration a potential future driver of population growth. The impact of this is expected to vary across TGSE, with Southend attracting higher flows due to the size of the rental market

- Danger that 'London effect' is under-estimated, with the capital constrained in its growth in all directions and likely to generate out-migration due to rapid escalation in house prices. There was a general consensus that outflows from London will continue, due to an under-provision of planning for and delivery of housing. This is reflected in the latest GLA forecasts, which confirm a recent uplift in migration flows from London to TGSE

- Suggestion that the relationship between TGSE and London should be compared and benchmarked against other areas, such as Kent, while further analysis should be undertaken to understand the drivers behind historic changes in the London relationship, with the comparative affordability an important driver

- Anecdotal evidence cited which suggests that people are increasingly bucking the trend by moving from TGSE to London, due to lifestyle changes and the attraction of the 'city'

- Regarding the potential mis-estimation of the population in Southend-on-Sea, it was noted that no use has been made of voter registration data, alongside GP registrations. However, GP registration data was seen as a useful addition to the analysis

- Clarification sought on the definition of households, as there was uncertainty around how population projections are translated into households and dwellings. It was emphasised that this will need to be clearly explained in the report

- Important to recognise that historic demographic trends have been influenced by constraints such as Green Belt

Economic Factors

- Agreement that there is likely to be a close relationship between population growth and job creation, although this is dependent upon the types of jobs created. Those on low wages, for example, are less likely to be able to afford to commute long distances

- Query regarding the variation in housing need based on different assumptions on economic participation. It was explained that different assumptions had been made to reflect uncertainty, and it was not unusual for a range of outcomes to be presented in the study. Views were sought from the workshop on the different influencing factors which would help to shape the study going forward

- Clarification sought regarding whether forecasts include job losses, with confirmation given that this represents a net position. Some felt that net employment growth could be expected to continue due to planned regeneration, and known projects at Southend Airport and Tilbury Port/London Gateway

- Suggestion that there was an increased focus on high density housing in London, in preference to sites which would traditionally be used for employment. This could push demand for logistics and/or employment uses beyond the M25, although some felt that it was difficult to attract logistics companies due to a preference towards central locations in the Midlands

- Concern around whether job creation in TGSE is realistic, with allocation of land for employment not necessarily resulting in immediate job creation. There were also concerns about skills, with a suggested need to introduce improved training

- Request for further detail on the types of jobs created, including the skills required and the subsequent effect on housing. Is housing needed to attract the jobs and workers? Specific question regarding the types of jobs created at the new port

- Expansion of airport and business park could act as a draw for specialist skills and professional skilled workers, while other employment hubs could attract migrants. Successfully supporting businesses in TGSE could impact upon the need for housing, by generating an additional demand for housing as people aspire to move to TGSE and grow families

- Agreement that people were likely to work longer in future, but suggestion that this could be more flexible, with increased part time or low skilled retail roles. Some felt that this was a significant assumption, although others felt that this could reflect the entrepreneurial spirit and dynamism of Essex and the need for people to work longer in response to pension changes and increased mortgage costs

- Suggestion that there is a disconnect between authorities' aspirations and the housing and employment growth that occurs, while some suggested that growth in jobs and employment could be constrained by the quality of existing infrastructure

- House price growth could have an economic impact, while housing development can generate range of jobs in construction industry as well as supporting technical and professional occupations, including planners and surveyors

- Observation that forecasts expect a surge in job creation before levelling off, with some questioning whether this is likely or realistic. Some suggested that a further recession could be expected over the short term

- Job growth in TGSE could be expected to be filled by a local workforce – provided that there is a match between jobs and skills – but commuters from nearby areas could also be attracted. The impact of a changing commuting ratio should be considered, although caution was expressed regarding the likelihood of jobs being occupied by local workers. Relative containment of workforce suggested as a comparatively unique characteristic of the area, reflecting the coastal effect and the radius from Southend

- Variation across TGSE highlighted, with Thurrock perceived as a strong employment location and Basildon a further economic centre, although the borough does currently have high levels of unemployment which are driven by a disconnect between the types of jobs created and the skills profile of the local labour force

- View shared that it is sensible to plan for a return to pre-recession unemployment rates, as whilst it is acknowledged that there is high unemployment in some groups in Southend, this can be skewed by seasonal effects

Market Signals

- Rental market in Southend-on-Sea identified as a key feature of the local market, which is predominantly made up of existing stock. There are, however, examples of new build rental property coming forward, and it was observed that there is nationally an increased entry of institutional investors to this market. Across wider TGSE, some felt that the private rented sector was not meeting housing needs, and it was suggested that longer term contracts could be required. The threat of future rent controls was identified as a significant risk factor for potential investors, however

- As rents increase, renting in the private rented sector becomes less affordable, with the freezing of the Local Housing Allowance and the cap on social rent making the sector less accessible to those on lower incomes. Those on lower incomes also face difficulty in obtaining a mortgage, and therefore rent even though the monthly outlay for a rent or mortgage can be similar

- Availability of land was referenced, with a view that there was more land to the east of London than in other directions. There was an observation that there are a lack of sites coming forward, however, which is driving up house prices

- The relative affordability of TGSE was acknowledged by several attendees, with many feeling that it is a key driver of housing demand in the area. Some did recognise that incomes have failed to keep pace with house prices, with a suggestion that this is driven by the types of jobs available in the area, and indeed some felt that house prices in the area were unaffordable

- Important to acknowledge the complex relationship between the earnings of residents and the earnings of people working in the area, while the future effect of factors such as university debts could also impact upon affordability

- Question regarding the impact of Right to Buy and Starter Homes on housing affordability. Short-term change in affordability was also noted, with some attendees stating that affordability improved as house prices fell following the recession. However, this may have worsened recently due to a shortage of supply and increased difficulty in obtaining mortgages

- Some felt that the area could be expected to have higher house prices, given the proximity to London, with a suggestion that further analysis of surrounding areas should be undertaken. Attendees felt that house prices are a clear indicator of the market reacting to demand that can't be satisfied

- Caution was expressed regarding dwelling numbers, and whether they were truly reflective of need. For example, it was questioned whether concealed housing could be translated into additional housing numbers, and it was felt that this should be determined by the severity of housing need. Aspirational housing was also felt as likely to form some of the forecasted housing numbers

- Query around how the final housing growth recommendation may take account of previous undersupply, although it was noted that the existing housing target was based on a relatively low growth outcome

- Important to consider whether overcrowded or concealed households are providing care for older family members, or are saving for a deposit. Does this generate a need for affordable housing or a market dwelling? Request for more specific definition of concealed families to clarify types of residents included

- Observed that the rate of development is constrained by a number of factors, including land supply, environmental constraints, build costs, inflation and land prices. Build rates can be affected by high levels of unimplemented permissions, and some suggested that planning approvals should be analysed as a market signal

- The number of unimplemented consents was raised as a major issue which is contributing to comparatively slow build out rates in TGSE, although it was explained that in many cases developers only have an option on land, with a need for land to be sold at the right price to enable development to proceed. It was suggested that developers are keen to bring sites forward, as market conditions have improved since the recession. In more popular areas, deliverability is greater, although some landowners often aspire to increase their return or renegotiate costs once planning consent is obtained

- General agreement that an adjustment in response to market signals was appropriate, although some felt that the proportionate uplift was relatively small. However, some felt that an upward adjustment was not appropriate, as it is unrealistic to expect younger households to form and enter the housing market as they have in the past

- Some held a view that peoples' expectations have increased over time, beyond the type of housing that can reasonably be afforded, due to the apparent availability of housing before the recession. Some observed that people are increasingly accepting smaller household due to its relative affordability, however, reaching a conclusion that spare

rooms aren't required, for example. People can be willing to 'sacrifice' something to purchase a home

- Suggestion that areas such as Thurrock have high alternative land values, particularly for employment uses close to the M25. This impacts upon the deliverability of housing, given that there tends to be competition with employment uses for brownfield sites, although some developers cited viability issues in Thurrock due to comparatively low house prices

- Observation that a worsening across a wider geographical area will require an improvement across this area, in response to a core underlying market problem

- Viability and a lack of market demand were cited as reasons for the comparatively low rate of development in TGSE

- Concern about a growing disparity between the promotion of home ownership through national policy and the preferences of households, with some people happy to rent provided that it is affordable to do so. People are often getting mortgages later in life, and working longer to pay it off

- Observation that the Buy to Let market is growing across TGSE, which often includes properties which were previously bought through Right to Buy. Some felt that this was driving house price growth

Affordable Housing Need

- Potential impact of welfare reforms highlighted and discussed at length, with view that while this will reform policy, it will not suppress demand. Acknowledgement that there remains considerable uncertainty around the future impact of welfare reforms, which will reduce the amount of money available in the affordable housing sector

- Universal credit could impact upon need for affordable housing, although suggested that this could be footloose and subsequently met across a wider geography. Changes to Housing Benefit are also likely to impact upon the need for affordable housing in TGSE

- Expectation that there will be significant supply pressures in future, due to factors such as Right to Buy, and this will be sustained unless there is a fundamental change in supply. Some RPs are likely to have a concentration of newer stock due to loss of older stock through Right to Buy

- Important to consider intermediate options including low cost market housing, although some felt that this would not address acute housing need issues which can only be met through social housing. Basildon was perceived to have an oversupply of shared ownership products, for example

- Important to recognise that waiting list represents a point in time, and query was raised regarding the exclusion of those not classified in priority need. Some also felt that the waiting list could incorporate some aspiration, and others questioned whether all concealed households should be included

- Suggestion that there has been an increase in the need for temporary accommodation and homelessness requests, and this will require consideration through policy response

- Relationship with London highlighted, with some London Boroughs utilising affordable housing stock in TGSE to meet needs

- Viability of affordable housing provision a recurring issue for developers, with a need to consider viability thresholds on schemes where a significant affordability component is required. This is often a negotiable element of developments, with some feeling that this defeats the object of trying to ensure sufficient affordable housing. Developers felt that a flexible approach was required, by considering a range of different affordable products particularly on rural sites

- Concern about clearing the backlog whilst meeting newly arising need, given scale of need suggested by assessment. Noted that GLA assume that backlog is cleared over a ten year period, rather than five years, whilst it was also highlighted that it will be important to understand the breakdown of need by type of product, ie social rent, affordable rent etc

- Expectation that future development of affordable housing will be impacted by rent cap, while receipts from Right to Buy are unlikely to cover the cost of replacement. The provision of affordable housing is also impacted by other factors, including land values and development viability, while Registered Providers are also impacted by the living wage which increases core costs

- Query regarding the realism of a household spending 30% of their income on rent, although generally felt that this was appropriate

- Anticipation that private rented sector will continue to play an important role in meeting affordable housing needs, although the extent to which Starter Homes can contribute towards meeting needs was questioned due to issues with securing deposits

- Suggestion that housing renewal programmes and regeneration could reduce the availability of low cost housing

- Discussion regarding the cost of additional affordable housing, with suggestion that additional pressure could be generated for schools, hospitals and other services. Agreement that a mix of housing – in terms of tenure and size – is the best way forward

Specific Housing Needs and Type of Housing
- Importance of providing specialist accommodation for older people was highlighted, given that this can potentially release housing for younger generations. Smaller accommodation was deemed most suitable for elderly people looking to downsize, given that this housing is also often cheaper to run. Concern about the supply of suitable housing for the older population currently, however, which is resulting in a reluctance from older people to downsize. Acknowledgement of various new concepts in older persons accommodation, such as Bourneville Care Village which provides integrated housing, health and social care provision

- Impact of older people on housing market observed, with older people likely to have paid off their mortgage and therefore reluctant to leave their homes. Is there an incentive to downsize, particularly if older people are continuing to work? Some examples of older people downsizing to release equity for children to buy homes. Impact of personal and social connections with 'family home' recognised

- Concern about over-reliance on residential care for older persons, although noted that Essex County Council want to promote more care homes. Suggestion that provision of residential care is driven by private sector

- Suggestion that there is an increased need for larger homes, which will grow if higher skilled jobs with higher incomes are created. This could reduce the need for affordable housing

- Increased interest in self-build and custom build housing, although it is difficult to progress through the planning system without policy support. Concern about affordability of this option

- Expectation that fewer flats will be developed in future, despite sizeable growth in this type of housing since 2001

- Concern that there is an absence of choice in the existing dwelling stock in areas where new jobs are being created, and there will be a need to accommodate demand from particular employment groups through the provision of family housing

- Important to take account of aspirational housing, including housing for higher earners. Suggested that mixed tenure provision is essential

- Households often aspire to upsize to larger properties, which are not being built, and this can limit the number of smaller homes becoming available. There are also often limitations on the number of small properties or bungalows available to enable people to downsize

Miscellaneous

- Important to recognise that issues relating to the future supply of housing in London are impacted by the existence of the Green Belt, with some suggesting that a future review may be required to qualitatively assess areas around London. Concerns were raised around the extent to which London will accommodate its own growth, with a failure to meet needs impacting upon surrounding authorities

- Question raised around the extent to which an assessment of need can be objective, as it was suggested that housing issues are influenced by wider policy which can impact upon future levels of need

- Direct questions were raised in relation to defined 'Housing Zones', including comments questioning the realism of a 2020 completion, build out rates of 50 dwellings per annum, and the impact of a shortage of young and/or apprentice bricklayers. Discussion was held around the extent to which Housing Zones contribute towards placemaking agendas, and both current and evolving spatial strategies

- Suggestion that the accessibility – or non-accessibility – of settlements should be considered in distributing housing growth, with observation that the SHMA does not consider the impact of growth on the existing infrastructure, which could already be at capacity. It was noted that these factors fall outside of the scope of the SHMA

- Variance in the distribution of dwelling output figures was observed, with Thurrock having the greatest growth due to its proximity to London. It was recognised that all areas will face growth pressures in the future, however, and this is reflected in authorities planning for additional housing through respective Local Plans

- Importance of producing consistent sub-regional evidence was raised

- Developers observed that the greatest demand for housing exists in Zones 3 – 6 of the London Zonal Fare System

- The extent to which transport infrastructure has increased the density of housing development was observed, with a suggestion that future improvements – particularly from Crossrail – will impact upon this. This could attract commuters towards areas outside TGSE

- Observation that the perception of Green Belt can present a challenge to development, even if land is not designated as Green Belt

- Southend-on-Sea has a constrained local authority boundary, with suggestion that this could require housing growth to be accommodated elsewhere in TGSE

Appendix 2: Demographic Analysis of Thames Gateway South Essex

The PPG establishes the 'starting point' for assessing housing need, citing the 2012-based household projections as an estimate of overall housing need. This reflects its trend-based nature, given that the projections show how the number of households – and the underpinning population – may change if past demographic trends continue.

However, the PPG does suggest that the 'starting point' may require adjustment, based on factors affecting local demography and household formation rates. The analysis presented within this Appendix therefore provides an overview of the 'starting point' – the 2012-based household projections – and also considers a range of alternative scenarios for each of the authorities within TGSE to test the impacts of different demographic assumptions, in line with the PPG.

The analysis in this section is principally concerned with considering the following questions in response to the application of the PPG methodology:

- Does the 2012 SNPP look reasonable in the context of historic demographic evidence including the latest Office of National Statistics population estimates?

- Does the demographic evidence suggest that historic trends have been impacted by specific local issues?

- Are recent years reflective of longer term trends, or have they been influenced by other factors, including but not limited to the onset of the recession and subsequent sustained economic downturn?

- What role does the flow of people to and from London have in shaping the above trends and how may it change in the future?

The 'Starting Point'

The 2012 sub-national household projections (SNHP) were released in February 2015, representing a full new official dataset published by DCLG. This forms the 'starting point' for assessing housing need, as set out in the PPG.

The 2012 SNHP is underpinned by the population growth projected under the 2012 sub-national population projections (SNPP), published by ONS. The 2012 SNPP dataset was released in May 2014, and provides the latest official benchmark for the analysis of population growth, taking full account of the 2011 Census.

The 2012 SNHP have been derived through the application of projected household representative rates – also referred to as headship rates – to a projection of the private household population, disaggregated by age, sex and relationship status.

Household growth is converted to dwellings for each authority through the application of individual vacancy rates, which – as confirmed by a recent Inspector's decision[189] – should be included within the objective assessment of need to reflect how stock is used. Vacancy rates are derived from the 2011 Census and set out in full in Appendix 4. No assumption has been made regarding the re-use of vacant property within the existing stock. This falls outside of the objective assessment of need, and requires separate consideration as policy is developed.

The following table shows the projected growth in population and households across TGSE and for each constituent authority. This shows change over the projection period used in this report, which runs from 2014 to 2037.

Figure 2.1   2012 Population and Household Projections 2014 – 2037

	Change 2014 – 2037				Average per year	
	Population	% Change	Households	% Change	Net Migration	Dwellings
Basildon	26,766	15.0%	14,900	19.9%	351	659
Castle Point	10,327	11.6%	6,368	17.1%	702	286
Rochford	10,560	12.5%	5,934	17.3%	474	265
Southend-on-Sea	30,394	17.2%	18,528	24.1%	841	848
Thurrock	37,511	23.1%	18,586	28.8%	396	828
TGSE	**115,558**	**16.7%**	**64,316**	**22.4%**	**2,764**	**2,886**

Source: ONS, DCLG, Edge Analytics, 2015

Across TGSE, it is evident that the 2012-based projections expect considerable growth in both population and households. The scale of population growth (16.7%) compares to a projected growth of 14.6% for England as a whole, with the 22.4% growth in households in TGSE also higher than the projected growth rate of 21.3% for England.

At a headline level, this scale of growth suggests a sustained high need for housing, with the resultant dwelling requirement approximately 2,886 dwellings per annum over the full projection period. This level of need accommodates the natural growth of the population – births minus deaths – but also assumes a strong level of annual net migration, equivalent to almost 2,800 people per annum. As considered in more detail below, this reflects the historic role of the area as an attractor of people from other parts of the UK in particular.

Looking at the individual authorities, it is apparent that there is some notable variation regarding the projected scale and rate of growth suggested by the 2012 based projections from ONS. Focusing on population growth, Thurrock is projected to see the strongest growth, with a projected increase of 23.1%. In contrast, Castle Point is expected to grow by 11.2% under this dataset, with Rochford also projected to see a comparatively low level of population growth in the context of other areas.

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[189] Borough Council of Kings Lynn and West Norfolk v Secretary of State for Communities and Local Government, ELM Park Holdings Ltd (CO/914/2015)

Focusing on the projected role of migration, however, this suggests slight variation in the key drivers of growth. Castle Point and Southend-on-Sea are both projected to see the highest levels of net in-migration, with an inflow of 702 and 841 persons per annum respectively on average. In contrast, Thurrock – despite a high population growth projection – has the second lowest level of net migration, behind only Basildon. This suggests that there are other drivers of growth – primarily natural change – and this highlights the important differences between components of population change across TGSE.

The remaining elements of this Appendix consider these factors in more detail, drawing upon the detailed demographic analysis undertaken by Edge Analytics.

Assessing the Historic Demographic Evidence

Understanding Longer-Term Population Change

Between successive Censuses, population estimation is necessary, with the ONS releasing annual estimates of population counts for each authority. These mid-year population estimates (MYEs) are derived by applying 'components of population change' (i.e. counts of births and deaths and estimates of internal and international migration) to the previous year's MYE.

Figure 2.2 shows the historical population change for the TGSE authorities as a whole between 1991 and 2014 using the latest ONS published statistics. This shows that TGSE experienced consistent population growth between 1991 and 2014, with an overall growth of 13.2% or approximately 81,240 people. There does not appear to be a significant impact both prior to or following the recession in TGSE.

Figure 2.2   TGSE mid-year population estimates, 1991- 2014
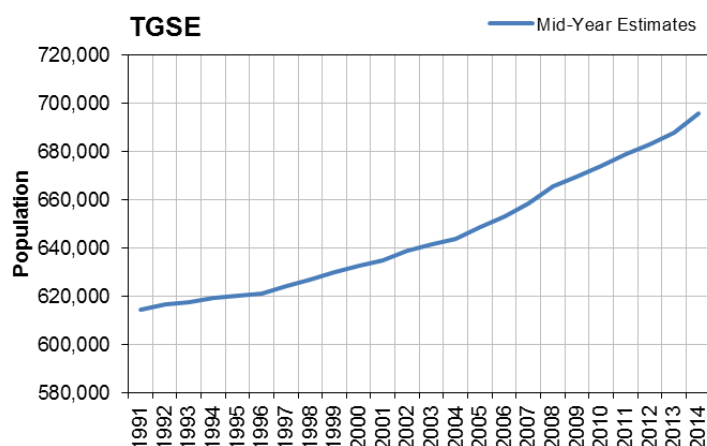
Source: Edge Analytics, 2015 (from ONS mid-year population estimates)

Focusing on change in each local authority, the charts below show how MYEs have changed in each of the local authorities since 1991.

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Figure 2.3   TGSE authorities mid-year population estimates, 1991-2014
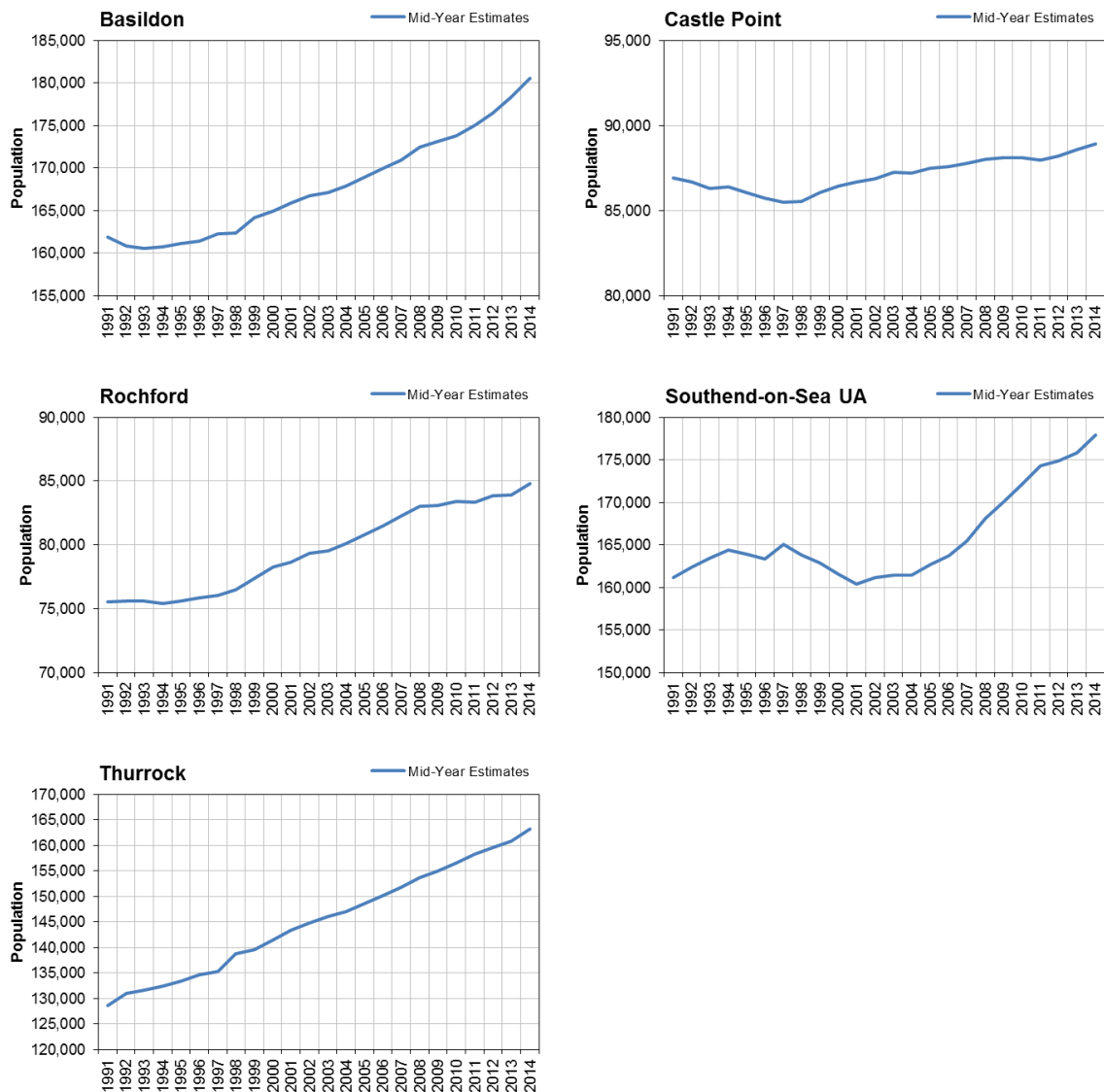
Source: Edge Analytics, 2015 (from ONS mid-year population estimates)

Over this longer-term period, the charts show that the highest population growth was recorded in Thurrock, with an increase of 26.9% – or around 34,600 people – over the period from 1991 to 2014.

By contrast, the lowest increase was seen in Castle Point, with the population growing by just 2.3% from 1991 to 2014, equivalent to 2,017 people. In the other authorities, the level of population growth over the same period of time was more closely aligned, at approximately 10%.

Basildon, Rochford and Thurrock have all seen a relatively consistent trajectory of population growth over the longer-term period shown, with this particularly true of Thurrock. It is of note that the rate of population growth in Thurrock and Basildon does not appear to have been impacted either prior to or since the recession.

Rochford saw limited population growth through the early 1990s, with the population then increasing at a comparatively high rate up to the recession. Following the onset of the recession, the authority saw its rate of population growth slow quite notably. The last year's estimate, however, shows a return to stronger levels of growth, with this considered in more detail later in the section.

Basildon, whilst also experiencing a relatively stable population growth through much of the 1990s, saw a more modest trajectory of growth up to around 2011. Since 2011, however, the authority, according to the ONS MYE datasets, has experienced a higher rate of population growth than has been seen previously in the historical period examined.

According to the ONS data, both Castle Point and Southend-on-Sea experienced a small population decrease between 1991 and 2001, which then reversed to population increase after 2001. The level of population change in Castle Point remained fairly modest; however, the population change in Southend-on-Sea was more substantial, changing from 0.5% population decline between 1991 and 2001 to an increase of 8.7% in the next ten years up to 2011. The historical demographic evidence in Southend-on-Sea is discussed further in a separate section below.

As with Rochford, there is evidence in the population estimates for Castle Point that the onset of the recession represented a change in the previous trend of growth. The latest MYEs since 2011, however, suggest a return to the previous trajectory of growth evident prior to the recession.

Considering the Components of Population Change

The historic profile of population growth for each authority shown in Figure 2.3 is underpinned by the different components of change related to migration and natural change factors (births and deaths).

This section considers the historical interplay between these factors in further detail, focusing on the more recent historical period since 2001. The charts included at Figure 2.4 show how the components have changed over this period in each of the authorities.

In considering the charts, population change is shown annually as being made up of the balance between internal migration (net flow resulting from moves to and from other parts of the UK) and international migration (net impact of immigration and emigration to and from the authority) and natural change (the net effect of births minus deaths).

It is important to note that the charts also show a fourth component labelled unattributable change. Following the 2011 Census, the 2002–2010 MYEs were 'rebased' to align with the 2011 MYE, and to ensure the correct transition of the age profile of the population over the 2001–2011 decade.

ONS did not explicitly assign the identified adjustment to any of the components of change. Instead, they presented it as a stand-alone 'unattributable population change' (UPC) component, suggesting they were not able to accurately identify the source of the 2001-2011 mis-estimation. This is therefore displayed separately on each of the charts in Figure 2.4.

Figure 2.4   Components of change, mid-year population estimates, 2001-2014
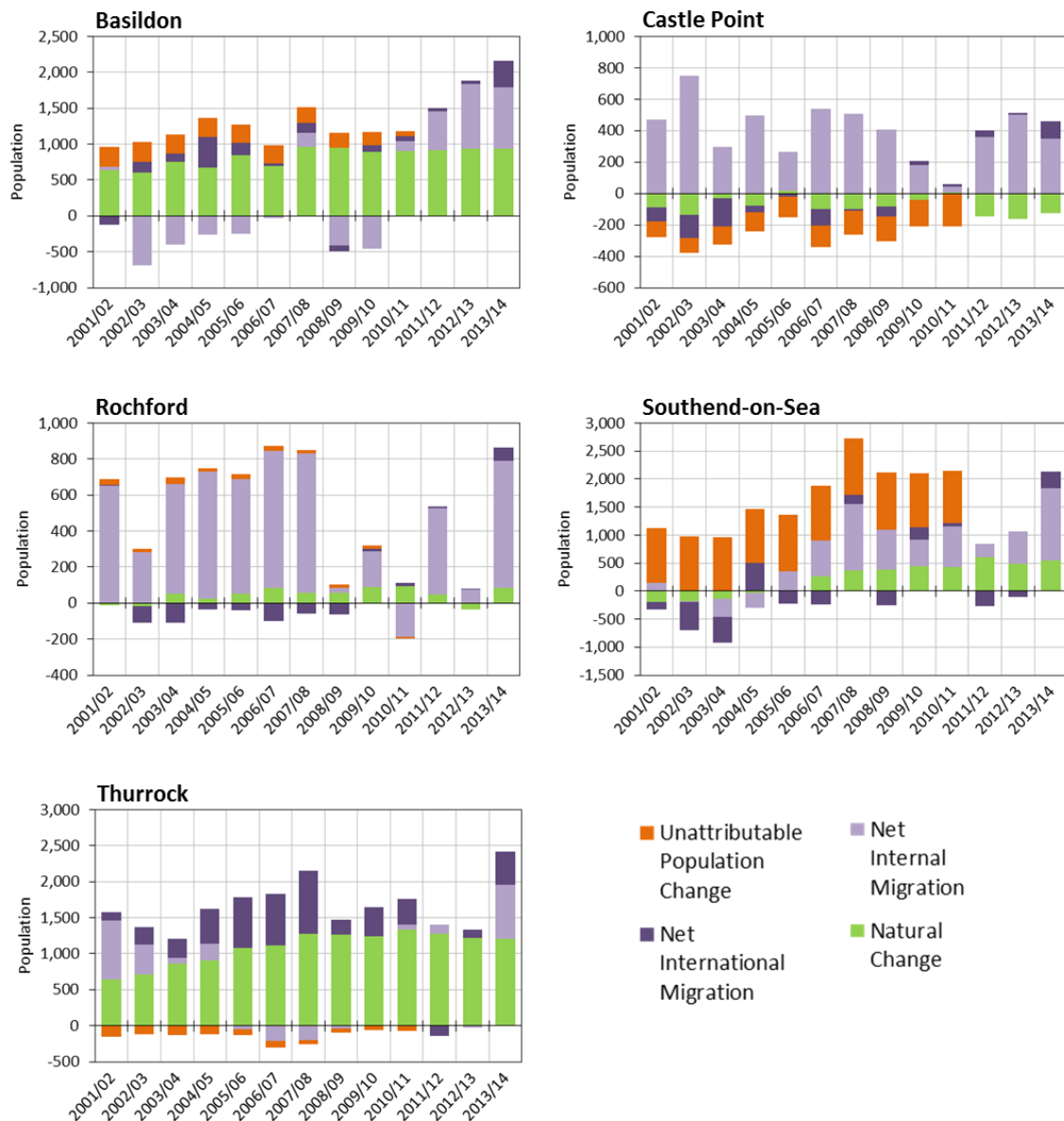
It is apparent that the effect of each of the components of change on the overall population growth over this historic period varies to a significant extent between the TGSE local authorities.

In Basildon, natural change has consistently represented the main driver of the population growth. The impact of the net internal and net international migration varies over time, with the net internal migration having had increasingly positive effect since 2010/11. With the exception of 2007/08, it is important to note that this component had represented a negative factor in Basildon, with the more recent trends therefore appearing to represent a departure from a longer-term picture that was evident prior to and following the recession. International migration is not shown to represent a significant contributor to population growth in the authority, although the last year's MYE does show a comparatively strong net flow in the context of the historic picture. The population estimates in Basildon were subject to slight positive adjustment due to the under-count over the 2001-2011 decade by the ONS, but this represents a comparatively small level of correction in the context of the growth seen.

The net internal migration component maintains the largest positive impact on population change in Castle Point. In the period preceding the recession, there was variation in the annual scale of growth, with levels in 2002/03 comparatively high in the context of the following three years. The lowest level was seen in 2010/11 which did follow a general downwards trend following the recession. The last three years, however, have seen a return to the stronger levels of growth seen prior to 2008/09. In addition, since 2009/10, the net international migration component has changed from having a small negative impact to having a small positive impact on Castle Point's population. The natural change component has not historically represented a significant contributor to population change, but it has been relatively consistent in contributing to lowering the population growth in the area, with deaths exceeding births in all years from 2001-2014, except in 2005/6 and 2010/11. The UPC adjustment has a negative impact on population growth, suggesting there was an over-count of Castle Point's population between 2001 and 2011.

As with Castle Point, the key driver of population growth in Rochford has been the net internal migration component. However, after a consistently positive impact in the first part of the period (2001/02 – 2007/08) – essentially up to the recession – the level of net internal migration fluctuated considerably in the following five years. It is, however, estimated as having returned to its pre-recession level in 2013/14. In comparison, the effect of net international migration and natural change on Rochford's population was limited throughout the 2001/02-2013/14 period. Similarly, the UPC adjustment had a small positive impact, indicating a minor under-count of the population between the 2001 and 2011 Censuses.

According to the ONS MYE, the impact of individual components of change on Southend-on-Sea's population varied considerably over the 2001/02-2013/14 period. The negative effect of natural change at the beginning of the time period reversed to maintain a small but consistently positive impact from 2006/07 onwards. Net internal migration became the major driver of population growth from 2005/06 to 2010/11, with this trend pre-dating the onset of the recession. This component has formed a relatively consistent contributor to population growth over this period with some level of variability over more recent years. After a substantial reduction in 2011/12 and 2012/13, it increased again in 2013/14 to a level which was approximate to the previous highest level in 2007/08. Net international migration had a relatively modest impact on population growth in the area, fluctuating between net inflow and outflow throughout the whole of the 2001/02-2013/14 period. Southend-on-Sea's population was subject to a very substantial upward adjustment due to UPC. Demographic evidence in Southend-on-Sea is analysed in more detail in the following sub-section to consider this aspect in more detail.

Thurrock experienced similar levels of natural change over the 2001/02-2013/14 period to Basildon. Again, this is the key driver of the area's population growth. Both net internal and net international migration had varied but largely positive impact on Thurrock's population; however, to a lesser extent than natural change. In the years prior to the onset of the recession, the authority saw a slightly negative internal migration change, although there is little evidence of the recession having a significant impact on the components of growth within the authority. There was a small negative UPC adjustment applied as a way of correcting the minor over-count of population in Thurrock during the 2001-2011 decade.

Scrutiny of Historical Demographic Evidence in Southend-on-Sea

The chart in Figure 2.4 illustrated that Southend-on-Sea's population was subject to a significant upward adjustment as a result of the 2011 Census count. The scale of this adjustment – reflected in the UPC assigned to historical population estimates – suggests that there may have been a population undercount in the 2001 Census. This is, however, difficult to verify. This has important implications when interpreting the range of scenarios presented in this report.

In an attempt to further understand the source of such an adjustment, historical demographic evidence from 1991 onwards is considered.

The original pre-2001 MYE suggested significant population increase over the 1991-2001 decade. However, following the release of the 2001 Census results, these estimates were revised downwards, to record a small population decrease over the 1991-2001 decade (Figure 2.5).

Figure 2.5   Southend-on-Sea, pre-2001 population estimates
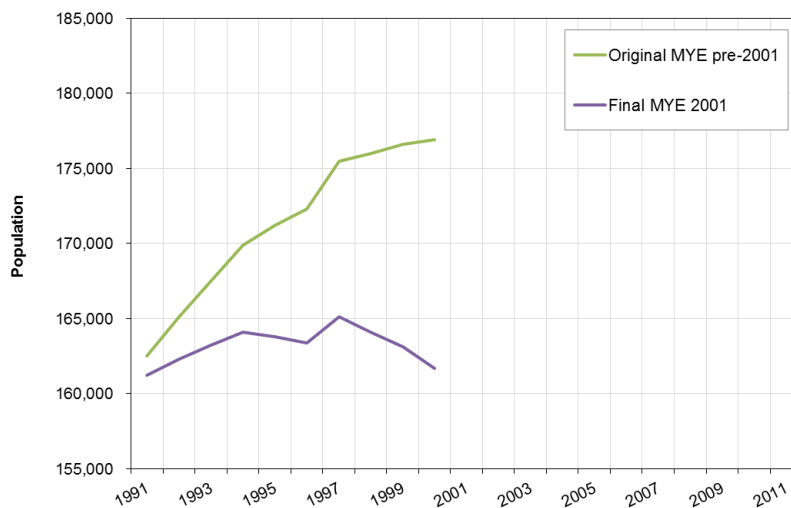
For the period 2001-2011 a small decline in Southend-on-Sea's population was estimated by the MYE to 2004, increasing thereafter (Figure 2.6).

Figure 2.6   Southend-on-Sea, post-2001 population estimates
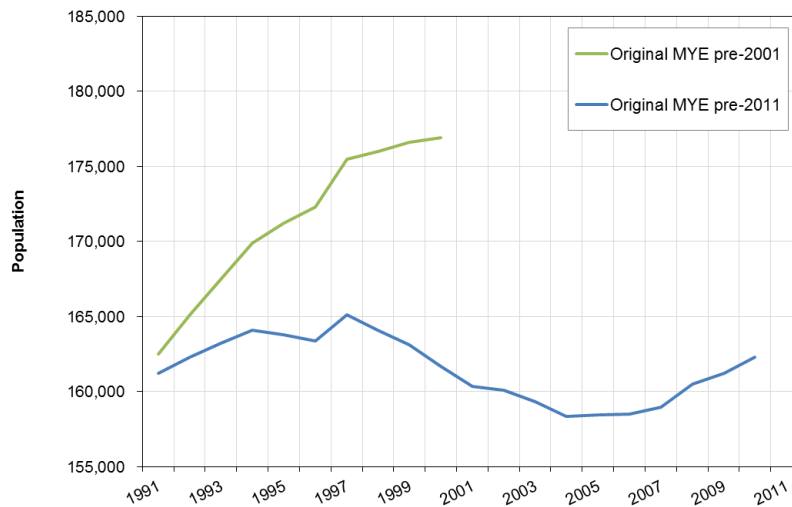
However, revisions to the MYE that followed the release of the 2011 Census statistics resulted in a very significant upward adjustment to the population estimates, which in 2011 suggested a population level similar to the one preceding the post-2001 Census revisions to the MYE (Figure 2.7).

Figure 2.7   Southend-on-Sea, pre- and post-2011 population estimates
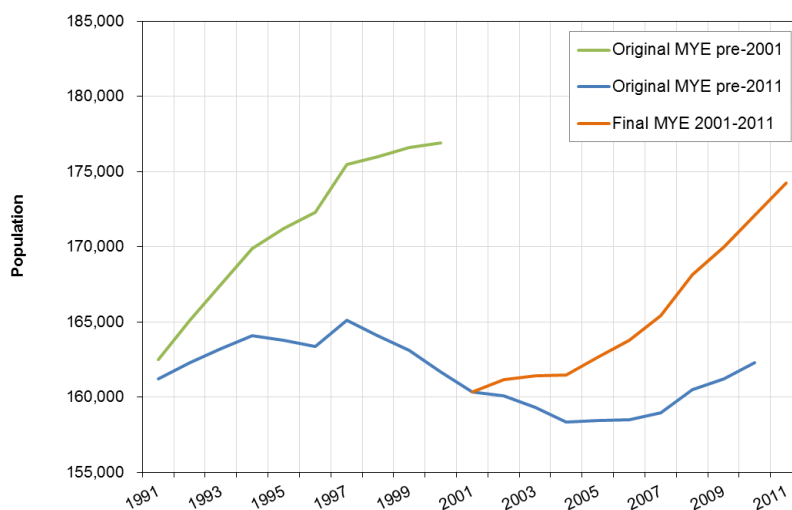
Extrapolating Southend-on-Sea's population estimates between 1991 and 2011 produces a picture that is reasonably consistent with the 1991-2001 trend in GP registrations in the area (Figure 2.8). This also seems to support the argument that there may have been an issue with the 2001 Census count in Southend-on-Sea. Given the difficulty in accurately verifying the source of such a significant adjustment, it is challenging to define the most appropriate use of the historic evidence in Southend-on-Sea. The implications of these uncertainties are considered in the context of the appropriateness of the 2012 SNPP, later in this Appendix.

Figure 2.8   Southend-on-Sea, pre- and post-2011 population estimates and GP registrations
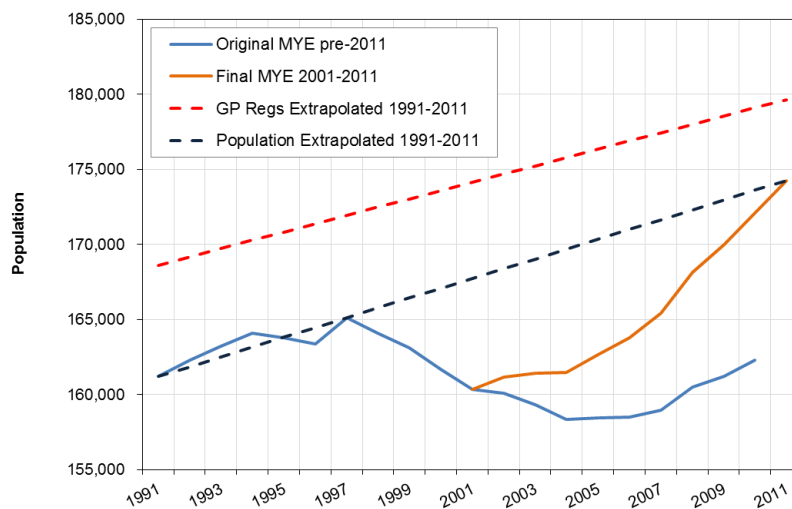
In September 2015, the ONS published a separate research report outlining an approach for providing reasonable indications of the likely causes of discrepancies, by component, between mid-year estimates for 2011, rolled forward from 2001, and Census based population estimates for 2011[190]. The report is accompanied by an Excel based toolkit providing an analysis for each authority identifying the scale of mis-estimation by gender and age and identified likely contributing factors. The ONS are clear to set out that the aim of the research is not to precisely quantify the contribution of any sub optimal estimation of each component to the overall discrepancy.

Looking specifically at Southend-on-Sea in the following charts, the toolkit illustrates that the ONS under-estimated the change in the population for both men and women aged 30 – 44. This also led to an under-estimation of children aged 10 – 19. For men, the analysis showed that the ONS also under-estimated those aged 50 – 59.

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[190] 'Further understanding of the causes of discrepancies between rolled forward and census based local authority mid-year population estimates for 2011' ONS (17th September 2015)

Figure 2.9   Southend-on-Sea, Males, 2011 – ONS Toolkit
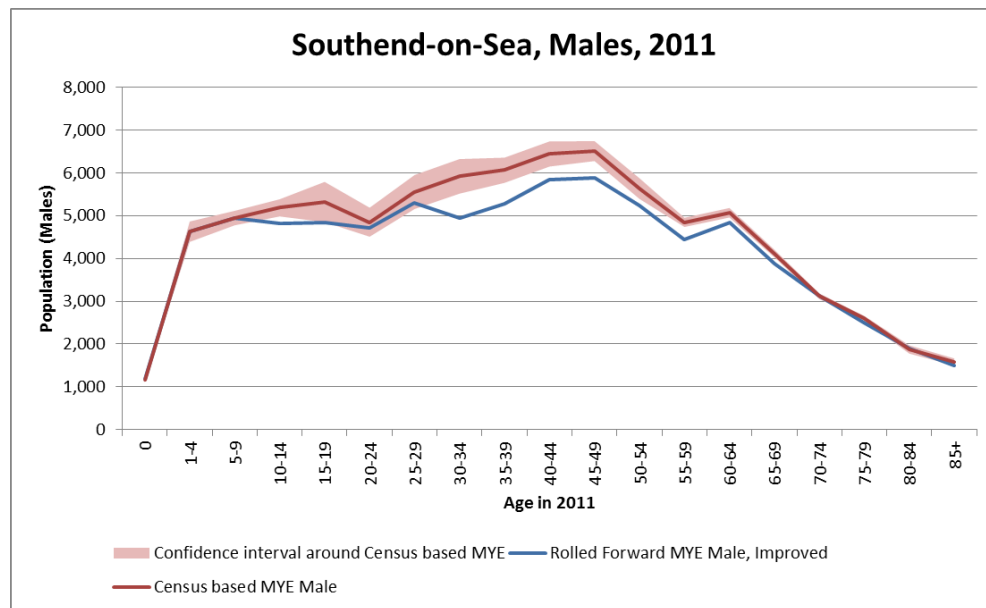
Source: ONS, 2015

Figure 2.10   Southend-on-Sea, Females, 2011 – ONS Toolkit
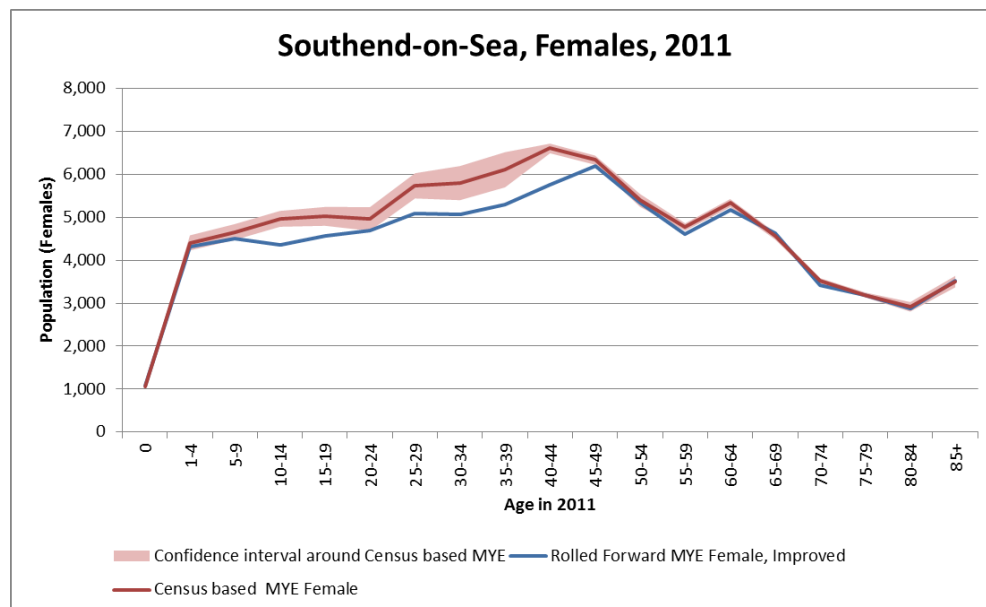
Source; ONS, 2015

Looking first at the male population, the ONS suggests the strongest flow contributors relate to a probable discrepancy associated with migration factors, internal migration and emigration flows. For a limited number of age groups, those aged 45 – 49 (and 85+ albeit this is identified as within the 95% confidence internal) the ONS identifies that the discrepancy could be the result of rolling forward from the 2001 Census taking into account Patient Register data (a similar approach to that considered above).

For the female population again internal migration and international immigration and emigration flows are considered as potentially contributing to the scale of under-estimation. Issues

associated with rolling forward from 2001 and with the 2001 Census are identified for a limited number of groups including those aged 40-44 and 45 – 49 as well as those aged 10-14. For those aged 65-69 this factor is attributed with a potential over-estimate, however, the scale of mis-estimation for this age group is considered to be within the 95% confidence interval based on the 2011 Census.

Overall, as outlined in the analysis undertaken by Edge Analytics, there is not a single specific contributing factor to the mis-estimation of the population change between the Census years in Southend-on-Sea. It is apparent that the ONS do not consider this to be solely associated with issues associated with rolling forward from 2001 and the 2001 Census count. The under-estimation of the population resulting from migration factors is also considered an important factor.

Considering the 2012 Sub-National Population Projections

The 2012 SNPP form an important benchmark and starting point for understanding housing needs. Within this sub-section, further consideration is given to the extent to which the projections represent a reasonable projection of future demographic derived need. This is considered in the context of the demographic history upon which they are based and the longer term picture.

The charts presented at Figure 2.11 benchmark the 2012 SNPP trajectory of population growth against a series of simple forward extrapolations of historic population growth, based on various historic periods. Whilst this represents a relatively crude indicator of the alignment of growth, it provides a useful initial indication of the extent to which the population growth projected under the 2012 SNPP compares to longer term trends.

Figure 2.11   Extrapolation of Historic Population Growth Trends – TGSE authorities
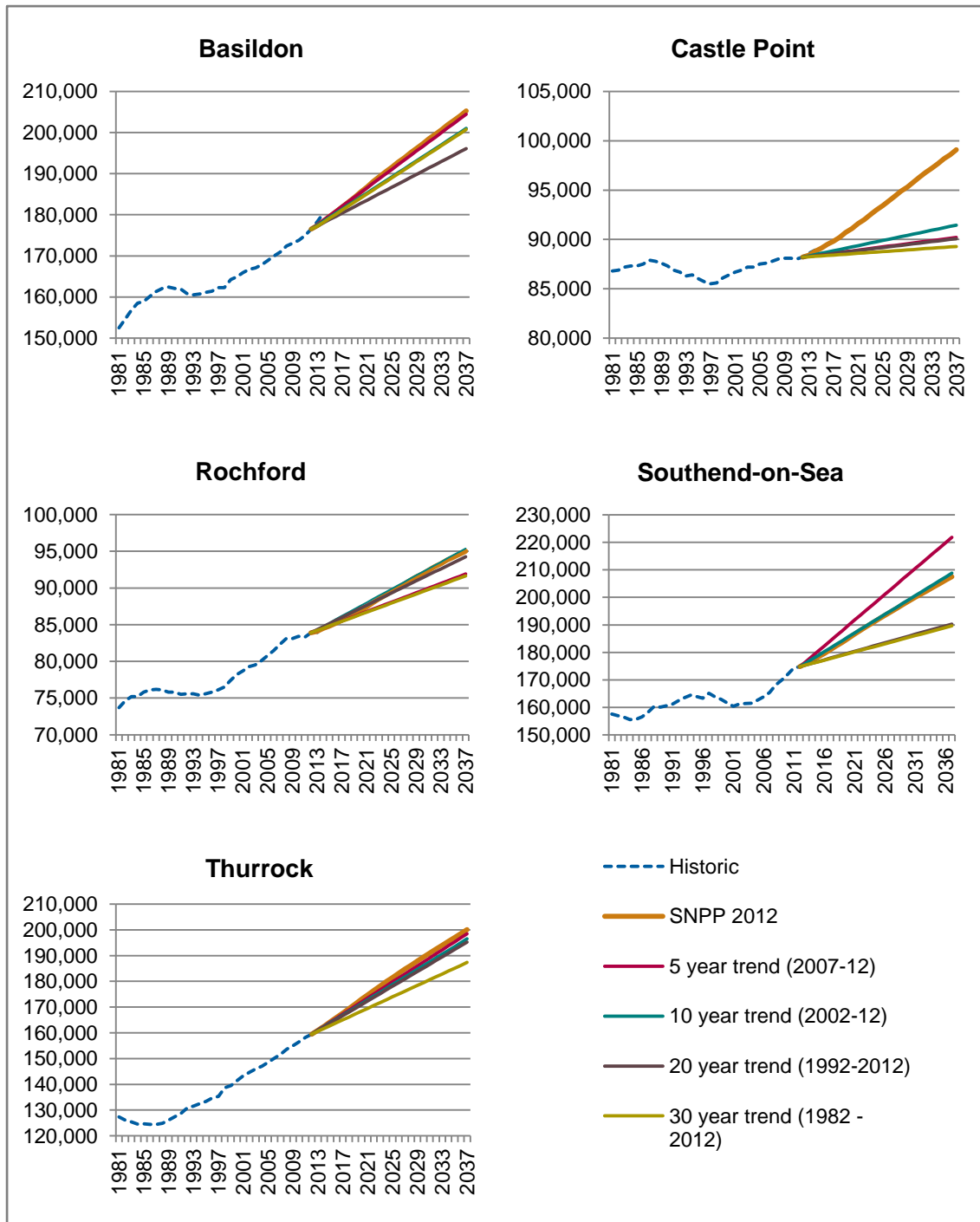
Source: ONS, 2015, Turley, 2015

For Basildon, it is apparent that the 2012 SNPP aligns most closely with the 5 year trend upon which the demographic inputs are primarily based. This trend is slightly higher than the 10 and 30 year trends, which show a consistent level of growth. This suggests a comparatively strong alignment with short and longer term growth trajectories. The same is also true of Thurrock, with the chart clearly showing the 2012 SNPP aligns with a consistent picture of growth over both the short and longer-term trends. The 20 year extrapolated trend is lower for Basildon, reflecting the slowdown in growth in the early 1990s identified earlier in the section.

For Rochford and Southend-on-Sea, the 2012 SNPP projection of growth aligns most strongly with the 10 year trend. In the case of Rochford, this is a slightly higher level of projected growth than the 5 year trend would suggest. This shorter-term trend is, however, more closely aligned with the longer-term 30 year trajectory. For Southend-on-Sea, by contrast, the projected growth in the 2012 SNPP falls slightly below the 5 year trend, but notably above the longer term 20 and 30 year trends.

Castle Point stands out with regards to the fact that the 2012 SNPP projection does not directly align with any of the historic trend based extrapolations. The projected growth under the 2012 SNPP sits notably above the historic trends for population growth in the authority.

The following table compares the underlying components of change in the 2012 SNPP dataset with a five year and ten year picture at a TGSE level. This adds further context when considering the alignment of the projections with historic trends.

Figure 2.12 TGSE, 2012-based SNPP components of change

TGSE Component of Change	Historical		Projected
	5-year average (2007/08–2011/12)	10-year average (2002/03–2011/12)	2012-based SNPP average (2012/13–2036/37)
Natural Change	2,644	2,125	2,282
Net Internal Migration	1,223	1,080	2,706
Net International Migration	359	332	-24
Unattributable Population Change*	747	895	-
Annual Population Change	4,963	4,410	4,964
Annual Population Change (%)	0.75%	0.69%	0.73%

* UPC is only applicable to the years 2001/02 - 2010/11

Source: ONS, Edge Analytics, 2015

Overall, the analysis of the underlying components of population change shows that the average annual impact of natural change in the 2012 SNPP is relatively consistent with the five-year (2007/08-2011/12) and ten-year (2002/03-2011/12) averages.

The impact of net internal migration on the TGSE local authorities is projected to be substantially higher in the 2012-based SNPP than either of the five- and ten-year averages would suggest. It is estimated to account for 55% (+2,706 per year) of change to 2037, compared to 25% (+1,223 per year) in the last five years and 24% (+1,080 per year) in the last ten years.

In contrast, the impact of international migration is much reduced. Regarding UPC, it is important to note that ONS has not included it in its calculations of future trends that underpin the 2012-based SNPP[191]. Even taking account of this consideration of the UPC component, the reduction in the projected input of international migration is notable in the context of the historic

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[191] '2012-based Subnational Population Projections for England. Report on Unattributable Population Change' (ONS, 20 January 2014)

trends. This will to some degree be due to net international migration assumptions at the national level within the 2012 SNPP. In this context, it is important to note that for England, the 2012-based SNPP assumes an average annual impact of international migration at +151,552 per year over the forecast period, compared to the five- and ten-year averages of +204,288 and +213,612 per year respectively.

In the TGSE area, the 2012-based SNPP suggests the net international migration contributes towards -0.5% of population growth (-24 per year), compared to 7% (+ 359 per year) and 8% (+332 per year) in the last five and ten years.

In considering the 2012 SNPP, it is also of note that the impact of the components of change also varies between individual local authorities. This is shown in Figure 2.13.

Figure 2.13   TGSE local authorities, 2012-based SNPP components of change summary

| Area Name | 2012-2037 Population Change | | | | |
	Natural Change	Net Internal Migration	Net International Migration	Population Change	Population Change %
Thurrock	30,891	6,479	3,242	40,612	25.5%
Southend-on-Sea	12,016	24,006	-3,365	32,657	18.7%
Basildon	20,498	7,996	315	28,809	16.3%
Rochford	-300	11,958	-512	11,146	13.3%
Castle Point	-6,055	17,205	-272	10,877	12.3%
TGSE	57,050	67,643	-592	124,101	18.2%
England	5,044,248	-160,801	3,788,801	8,672,248	16.2%

Rochford and Castle Point are estimated to experience a net loss due to natural change over the 2012-2037 projection period, with the remaining areas suggesting considerable positive impact on population growth.

The effect of net internal migration is projected to be positive for all areas, with Southend-on-Sea and Castle Point having the highest net impact and Thurrock and Basildon the lowest.

The net impact of population growth due to international migration varies between the areas. Southend-on-Sea, Rochford and Castle Point are estimated to experience a net loss due to international migration, whereas Thurrock and Basildon are expected to see a net gain.

The following table considers the extent to which the SNPP 2012 is reflective of historical trends in each of the TGSE authorities.

Figure 2.14 Contrasting historic trends and 2012 SNPP projections for each of the TGSE authorities

Basildon	Historical		Projected
Component of Change	5-year average (2007/08–2011/12)	10-year average (2002/03–2011/12)	2012-based SNPP average (2012/13–2036/37)
Natural Change	925	820	820
Net Internal Migration	-4	-163	320
Net International Migration	55	117	13
Unattributable Population Change*	135	201	-
Annual Population Change	1,111	972	1,152
Annual Population Change (%)	0.65%	0.58%	0.65%

* UPC is only applicable to the years 2001/02 - 2010/11

Castle Point	Historical		Projected
Component of Change	5-year average (2007/08–2011/12)	10-year average (2002/03–2011/12)	2012-based SNPP average (2012/13–2036/37)
Natural Change	-73	-69	-242
Net Internal Migration	301	384	688
Net International Migration	1	-49	-11
Unattributable Population Change*	-138	-128	-
Annual Population Change	89	136	435
Annual Population Change (%)	0.10%	0.16%	0.49%

* UPC is only applicable to the years 2001/02 - 2010/11

Rochford	Historical		Projected
Component of Change	5-year average (2007/08–2011/12)	10-year average (2002/03–2011/12)	2012-based SNPP average (2012/13–2036/37)
Natural Change	69	54	-12
Net Internal Migration	256	436	478
Net International Migration	-16	-46	-20
Unattributable Population Change*	9	17	-
Annual Population Change	320	453	446
Annual Population Change (%)	0.39%	0.57%	0.53%

* UPC is only applicable to the years 2001/02 - 2010/11

Southend-on-Sea	Historical		Projected
Component of Change	5-year average (2007/08–2011/12)	10-year average (2002/03–2011/12)	2012-based SNPP average (2012/13–2036/37)
Natural Change	445	215	481
Net Internal Migration	671	375	960
Net International Migration	-18	-101	-135
Unattributable Population Change*	789	884	-
Annual Population Change	1,885	1,369	1,306
Annual Population Change (%)	1.14%	0.85%	0.75%

* UPC is only applicable to the years 2001/02 - 2010/11

Thurrock	Historical		Projected
Component of Change	5-year average (2007/08–2011/12)	10-year average (2002/03–2011/12)	2012-based SNPP average (2012/13–2036/37)
Natural Change	1,277	1,105	1,236
Net Internal Migration	-1	49	259
Net International Migration	337	411	130
Unattributable Population Change*	-50	-79	-
Annual Population Change	1,559	1,481	1,624
Annual Population Change (%)	1.03%	1.02%	1.02%

* UPC is only applicable to the years 2001/02 - 2010/11

Source: Edge Analytics, 2015

The average annual impact of natural change suggested in the 2012-based SNPP for Basildon, Southend-on-Sea and Thurrock is fairly consistent with the historical trends. In Basildon, the 2012-based SNPP average natural change impact is in line with the 10 year historical trend and not too dissimilar to the 5 year trend. In Southend-on-Sea the 2012-based SNPP suggests the average annual impact of natural change is higher than either the 5 or 10 year trend but relatively close to the former. The 2012-based SNPP assumes the level of population growth through natural change in Thurrock to be fairly consistent with both the 5 and 10 year historical trends.

In contrast, in Castle Point and Rochford the 2012-based SNPP suggests the impact of natural change is notably different to the historical trends. In Castle Point the 2012-based SNPP implies a higher negative impact of natural change than either of the historical trends. In Rochford, the 2012-based SNPP assumes a small negative impact of natural change compared with the relatively small but positive effect suggested by the 5 and 10 year trends.

In all areas, the average annual impact of internal migration is higher in the 2012-based SNPP than the historical trends would suggest. In Basildon, the 2012-based SNPP assumes a considerable positive impact of net internal migration over the 25-year period, despite the fact

that historically the area has experienced net out-migration (although this appears to have reduced in the 5 year trend). In Castle Point, Rochford and Thurrock, the 2012-based SNPP suggests a substantial positive impact of net internal migration, even though the historical trends suggest a reduction in the impact of net internal migration. In Southend-on-Sea, the increase in the positive impact of the net internal migration evident in historical 5 and 10 year trends is continued in the 2012-based SNPP.

In line with historical evidence, the 2012-based SNPP suggests a limited impact of net international migration on the authorities' population growth. In Basildon and Thurrock, the 2012-based SNPP assumes lower positive impact of net international migration than the 5 and 10 year historical trends. In Castle Point and Rochford, the 2012-based SNPP suggests a small negative impact of net international migration, sitting between the levels implied by the 5 and 10 year trends. In Southend-on-Sea, the 2012-based SNPP assumes higher negative impact of net international migration then either of the historical trends.

Looking at the cumulative impact of the components of change (including the UPC in the historical trends) on the percentage annual population change shows that the overall population growth in Thurrock and Basildon suggested in the 2012-based SNPP is similar to the 5 and 10 year historical trends. In Rochford, the 2012-based SNPP assumes annual population change more closely aligned with the 10 year historical trend, which is higher than the 5 year trend. In Castle Point, the 2012-based SNPP implies notably higher annual population growth than both of the historical trends would suggest. In Southend-on-Sea, the 2012-based SNPP assumes annual population growth lower than in the historical trends, but not too dissimilar to the 10 year trend. However, when UPC is discounted from the historical trends, the annual population growth assumed in the 2012-based SNPP is significantly higher than that which was recorded historically for Southend-on-Sea, for both 5 and particularly 10 year trends. This needs to be considered in the context of the analysis of factors affecting UPC in Southend-on-Sea, as considered by Edge Analytics and identified in the ONS toolkit.

Historic and projected components of change are illustrated in the following charts.

Figure 2.15   Historic and Projected Components of Change – 2012 SNPP

Basildon

Castle Point

Rochford

Natural Change   Net Internal Migration   Net International Migration   Other Change

Southend-on-Sea

Thurrock

■ Natural Change ■ Net Internal Migration ■ Net International Migration ■ Other Change
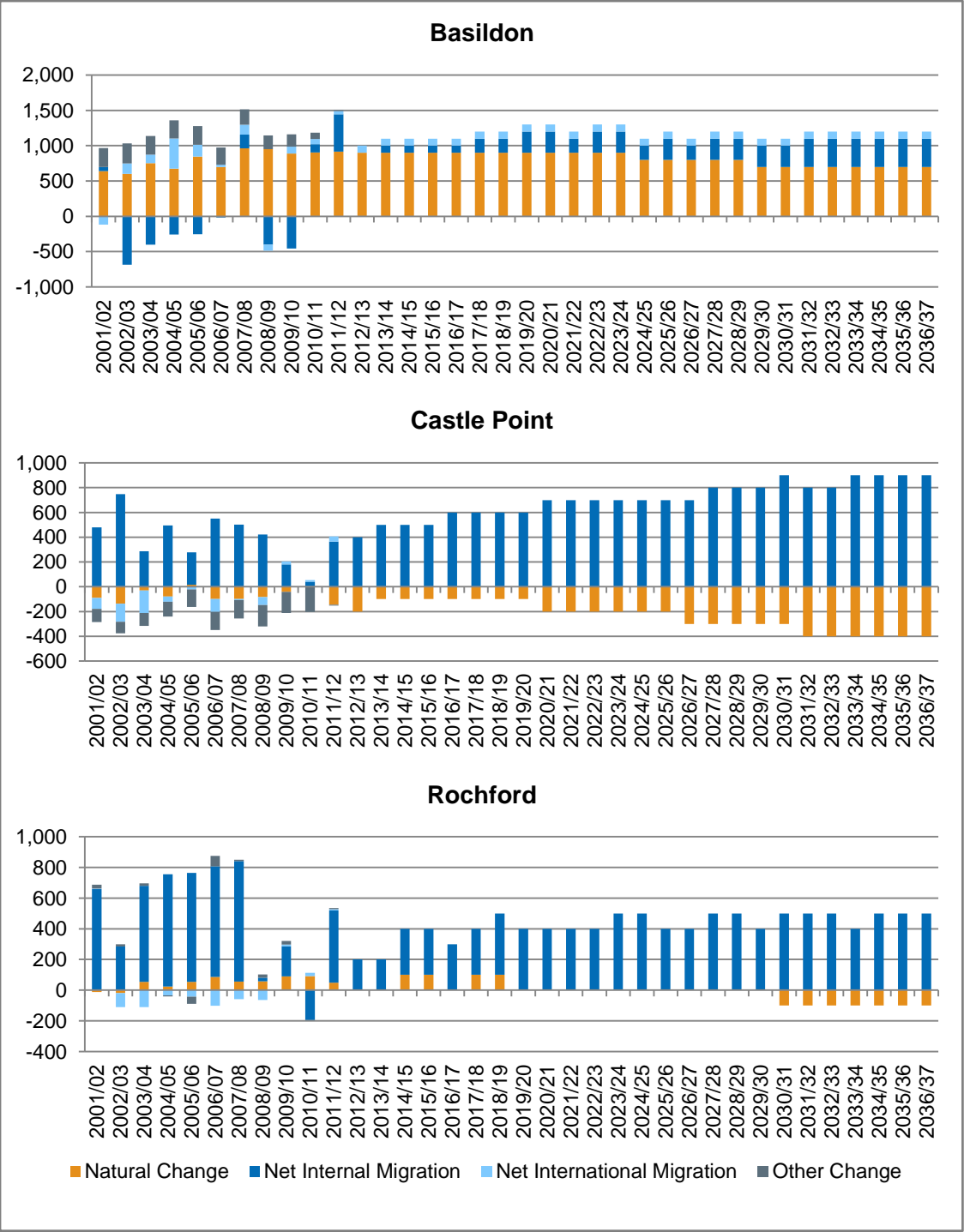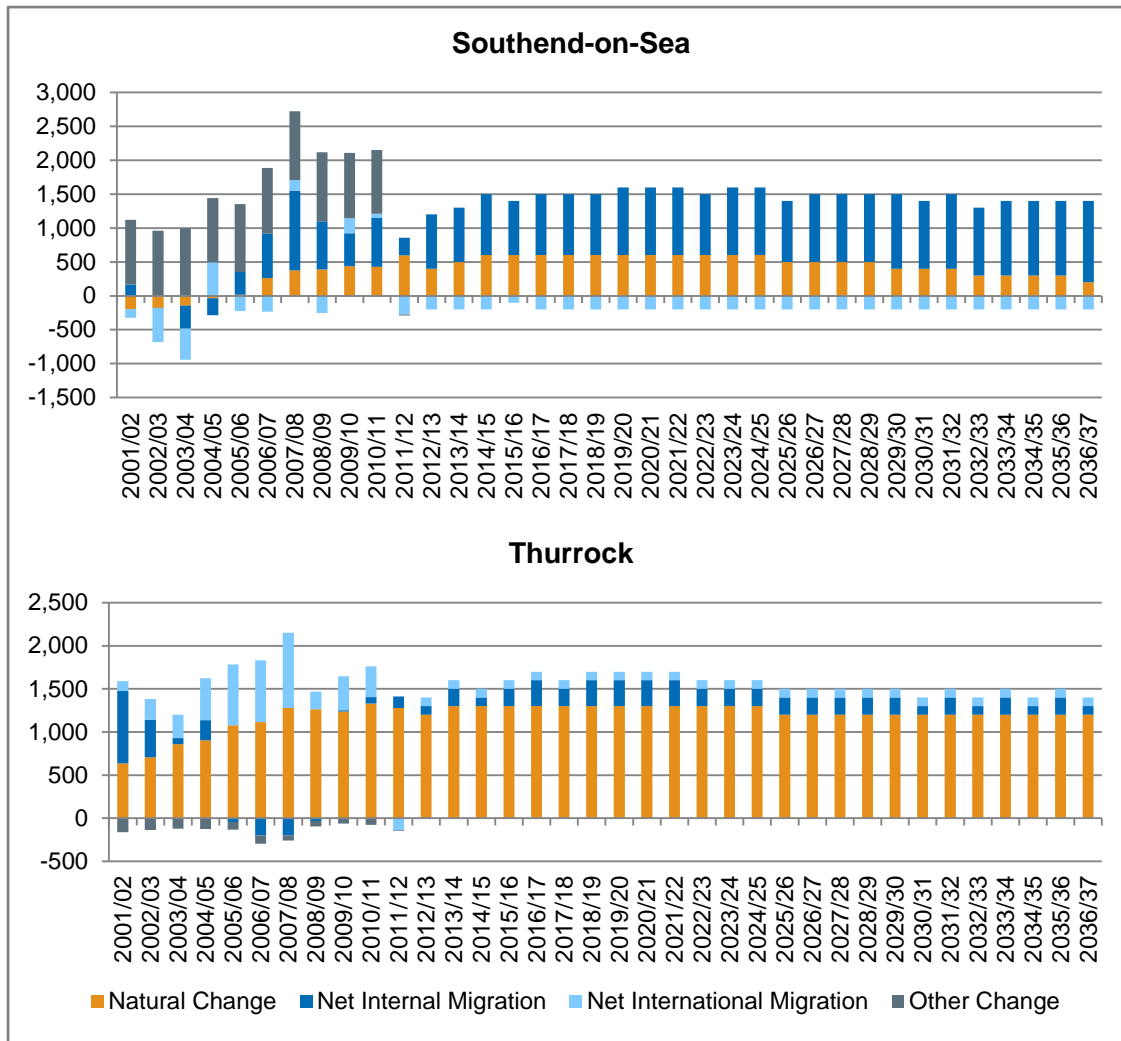
Source: ONS, 2015

Focusing specifically on migration, Figure 2.16 provides a summary of the different migration assumptions underpinning the 2012 SNPP dataset – expanding on the analysis presented above – showing projected internal and international migration flows to and from each of the TGSE authorities, compared to historical trends which are also provided for context.

Figure 2.16 Historic and Projected Migration Flows – 2012 SNPP

Source: ONS, 2015

For all authorities, it is notable that the 2012 SNPP projects an increase in both internal in and out migration flows over the projection periods.

In Basildon and Thurrock, the two flows essentially balance each other out, reflecting the historic picture relatively closely. In Thurrock in particular, the number of both inward and outward internal migrants is expected to surpass levels seen earlier in the past decade.

Internal in-migration flows in the 2012 SNPP in Castle Point show a projected strong growth which exceeds that seen historically in the borough, both before and after the recession. The net impact of this is relatively significant, and evidently represents a departure from the historic trends, with the out-migration flow projected to remain relatively stable.

A similar position is seen in Southend-on-Sea, with the projections showing a continuation of an increasing growth of internal in-migrants as seen over recent years. The projections suggest that levels of in and out flows of internal migrants will exceed those seen historically, albeit unlike Castle Point the trends are more aligned meaning the net impact is less significant.

Rochford's projections appear to be relatively aligned with the historic position. With regards to the in-flows, the projections show a recovery to levels which were seen prior to the recession. Outflows are projected to increase, albeit not to a significantly higher level than that seen historically.

The charts shown in Figure 2.16 do not include the latest ONS MYE, which were considered earlier in the section. These provide a useful check to consider the extent to which the ONS estimation of population growth has varied from the projections over the two years since their base date.

The following table compares the 2012 SNPP projected population growth – including components of change – for the TGSE area compared to the 2013 and 2014 MYE datasets.

Figure 2.17   TGSE 2012 SNPP and Mid-Year Population Estimates

	2012 SNPP[192]	MYE
2012 MYE	**682,932**	**682,932**
Natural Change	2,300	2,430
Net Internal Migration	1,500	2,195
Net International Migration	100	88
Other Change	0	-155
2013 MYE	**686,800**	**687,490**
Natural Change	2,600	2,658
Net Internal Migration	1,800	3,914
Net International Migration	100	1,316
Other Change	0	27
2014 MYE	**691,500**	**695,405**

Source: ONS, 2015

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[192] Rounded figures presented

It is apparent that the latest ONS 2014 MYE suggest that the population of TGSE has grown to a greater extent than projected in the 2012 SNPP. Indeed, the 2014 MYE is almost 4,000 higher over the two year period of the projections.

Examining the components, it is evident that the most significant contributing factor is a higher estimated level of net internal migration into the area, with this consistent over both years but in particular between 2013 and 2014. This is important in the context of the analysis of the changing relationship with London and the return – in three out of the five authorities (Basildon, Southend-on-Sea and Thurrock) – to levels of movements of people from Greater London seen prior to the recession. These flows are considerably higher than those seen in 2011/12 at the base date of the 2012-based SNPP.

The difference between the ONS MYE and the 2012-based projection is also driven by a higher net international migration flow, particularly in the last year. Indeed, in England as a whole, international migration over these two years has been notably higher than that projected within the 2012 SNPP. While the projections expected a total net inflow of around 302,900 international migrants between 2012 and 2014, ONS estimate that the actual flow has been around 418,000 migrants. This is likely to have an impact on this component across the country, including TGSE.

These factors form an important context for considering the extent to which the 2012 SNPP may potentially serve to underestimate projected growth in the area, particularly in the context of the relationship with Greater London. This is considered further in the development of variant projections of population growth later in this appendix.

Projected and estimated population change between 2012 and 2014 in each authority is summarised in the following table, in a comparable format to that shown in Figure 2.18.

Figure 2.18   TGSE individual authorities 2012 SNPP and Mid-Year Population Estimates

	Basildon		Castle Point		Rochford		Southend-on-Sea		Thurrock	
	2012 SNPP	MYE	2012 SNPP	MYE	2012 SNPP	MYE	2012 SNPP	MYE	2012 SNPP	MYE
2012 MYE	**176,474**	**176,474**	**88,218**	**88,218**	**83,869**	**83,869**	**174,838**	**174,838**	**159,533**	**159,533**
Natural Change	900	933	-200	-161	0	-36	400	481	1,200	1,213
Net Internal Migration	0	916	400	493	200	259	800	565	100	-38
Net International Migration	100	49	100	11	0	2	-200	-99	100	125
Other Change	–	-10	–	9	–	-183	–	13	–	16
2013 MYE	**177,400**	**178,362**	**88,400**	**88,570**	**84,100**	**83,911**	**175,900**	**175,798**	**161,000**	**160,849**
Natural Change	900	940	-100	-123	0	86	500	543	1,300	1,212
Net Internal Migration	100	834	500	350	200	697	800	1,300	200	733
Net International Migration	100	364	100	112	0	77	-200	295	100	468
Other Change	–	21	–	-2	–	5	–	-5	–	8
2014 MYE	**178,500**	**180,521**	**88,800**	**88,907**	**84,500**	**84,776**	**177,100**	**177,931**	**162,600**	**163,270**

Source: ONS, 2015

All of the authorities have a higher estimated population in 2014 than the 2012 SNPP suggested. This is particularly true of Basildon, which makes up approximately half of the difference across the TGSE area (2,021 persons). Southend-on-Sea and Thurrock also see comparatively large differences of 831 and 670 persons respectively. Castle Point and Rochford show a much closer alignment.

It is evident that the higher estimated growth in people relating to internal migration is particularly clear in Basildon over both of the years, with Rochford and Thurrock also showing a divergence in the last year of data. The opposite position is evidenced in Castle Point where the estimates suggest a lower level of growth associated with this component.

The international migration component is more varied with regards to its impacts across the authorities. This could be linked to the impact of UPC, although this cannot be definitively stated. Only Thurrock and Castle Point saw their population overestimated by the ONS between Censuses, and this was only to a relatively small extent. Also, given that the notably sharp increase in net international migration is generally only evident in 2013/14 – rather than both years presented – it is challenging to understand whether the higher levels of international migration in 2013/14 are a result of the ONS' previous mis-estimation or simply the result of a year when notably high numbers of international migrants came to England.

Alternative Demographic Projections of Need

There is no single definitive view on the likely level of growth expected in the TGSE area. A mix of economic, demographic and national/local policy issues ultimately determines the speed and scale of change. For local planning purposes, it is necessary to evaluate a range of growth alternatives to establish the most 'appropriate' basis for determining future housing provision.

Edge Analytics has used POPGROUP technology to develop a range of trend growth scenarios for the TGSE area.

In line with the PPG, the most recent population and household projection models have been considered. A total of six trend-based scenarios have been developed and benchmarked against the ONS 2012-based SNPP (**SNPP-2012**).

Each scenario has been evaluated using the latest 2012-based household headship rates from DCLG (**HH-12**) and an alternative set of headship rates that 'return' the headship rates for males and females aged 20-39 (for Basildon – males and females aged 20-34) to their 2001 level between 2014 and 2024, following the official trend thereafter (**HH-12 R**). This provides a 'range' of household and dwelling growth options for consideration. All scenarios have been produced with a 2014 base year and a horizon of 2037.

In the following sections, the alternative trend-based scenarios are described and the broad assumptions specified. For further detail on the data inputs and assumptions, refer to Appendix 4.

Past Growth Variant Projections

A five year historical period is a typical time-frame from which migration 'trend' assumptions are derived (this is consistent with the ONS official methodology). However, given the unprecedented economic change that has occurred since 2008, it is important to give due consideration to an extended historical time period for assumption derivation. In addition, it has

been important to consider the alternative trend scenario formulated by the GLA as a direct contrast to the **SNPP-2012** outcome.

Three alternative trend scenarios have been developed, based upon the latest demographic evidence:

- **PG-5yr**: Internal and international migration assumptions are based on the last 5 years of historical evidence (2009/10 to 2013/14).

- **PG-10yr**: internal and international migration assumptions are based on the last 10 years of historical evidence (2004/05 to 2013/14).

- **Natural Change**: internal and international migration flows are set to zero.

The trend scenarios listed above assume that the 'unattributable population component' (UPC) for the 2001–2011 historical period is associated with the mis-estimation of international migration. Given the uncertainty associated with the UPC amendment, for the 2001–2011 historical period a sensitivity test on its importance in determining future growth assumptions is appropriate. Two further trend scenarios have been developed that exclude the UPC from the international migration assumptions:

- **PG-5Yr-X**: Internal and international migration assumptions are based on the last 5 years of historical evidence (2009/10 to 2013/14), excluding UPC.

- **PG-10Yr-X**: internal and international migration assumptions are based on the last 10 years of historical evidence (2004/05 to 2013/14), excluding UPC.

A sixth trend scenario, **SNPP-2012-LDN**, considers the growth impact of the migration uplift suggested by the GLA 2013 **Central** scenario, over-and-above what is implied by the 2012-based SNPP. The rationale and explanation of the methodology used to develop this scenario is set out in a separate sub-section below.

Impact of changing migration patterns in London – Alternative Scenario

Historical Relationship with London
The analysis of HMA geographies in the SHMA has highlighted that Greater London plays a significant influencing role on the housing market in TGSE, and also impacts the demographic dynamics of each local authority. In particular, London provides a source of new migrants that drive population growth outside of the Greater London boundary.

The historical migration relationship between the London Boroughs and the TGSE local authorities is presented in Figure 2.19.

Figure 2.19   Internal migration flows between London and the TGSE area
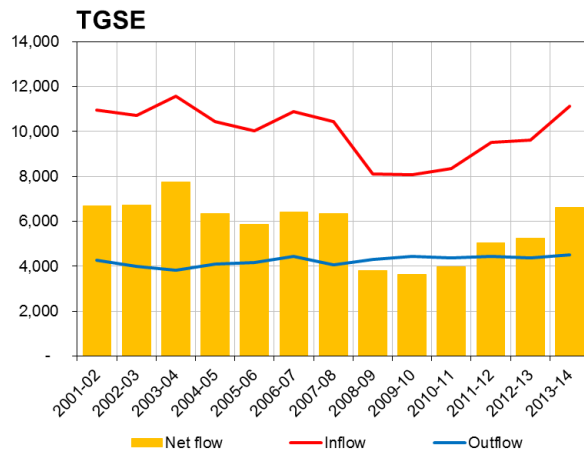
In-migration from Greater London to TGSE has been consistently higher than the corresponding out-migration to Greater London from these areas. Between 2001/02–2013/14, inflow and outflow averaged 9,983 and 4,253 respectively, with this resulting in an average net impact of 5,730 per annum.

However, in the last five years (2009/10–2013/14), the net migration balance has reduced from its thirteen-year average of 5,730 to a five-year average of approximately 4,900. With the out-migration from the TGSE local authorities to Greater London remaining fairly stable, the reduction in the average net migration growth has been due to the fall in migration levels (in-migration) from Greater London. This suggests that fewer people moved to TGSE from Greater London.

Since 2007/08, there has been a considerable volatility in the London migration effect. The flow of people from London to TGSE fell significantly after 2007/08, with this likely to represent an impact of the onset of recession. Since 2011, however, in-migration has progressively increased to reach a similar level to the pre-2008/09 values, with an associated uplift in the net migration growth in the TGSE local authorities. This means that the picture in 2013/14 shows a strong alignment with that seen prior to the recession, but notably different to that seen in 2011/12 (the base date for the 2012 SNPP/ SNHP datasets).

The graphs below show the individual internal migration flow relationships between London and each of the TGSE authorities, drawing upon migration data published under the Patient Register Data Service (PRDS) by ONS.

Figure 2.20   Internal migration flows between London and Basildon

Basildon
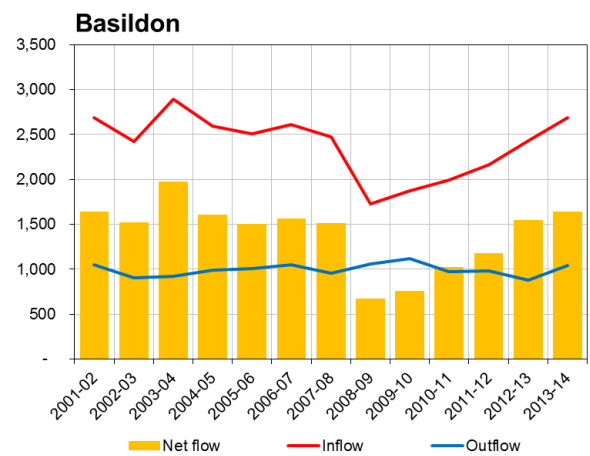
Figure 2.21   Internal migration flows between London and Castle Point

Castle Point
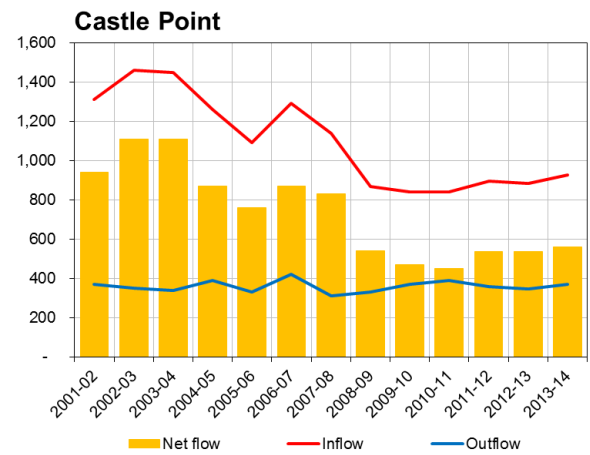
Figure 2.22   Internal migration flows between London and Rochford

Rochford
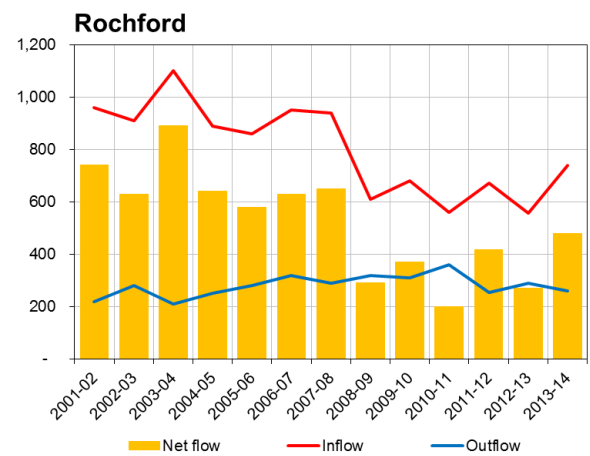
Figure 2.23   Internal migration flows between London and Southend-on-Sea
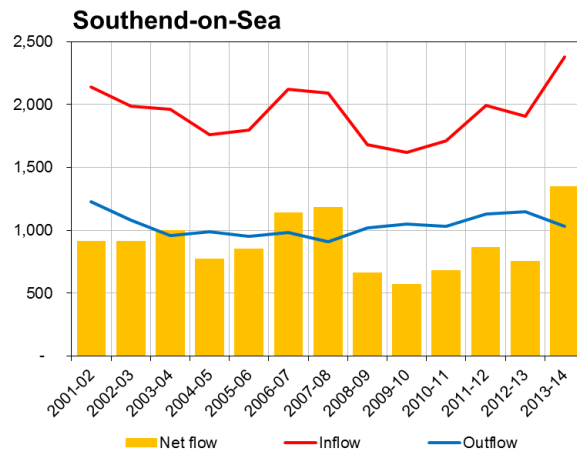
Figure 2.24   Internal migration flows between London and Thurrock
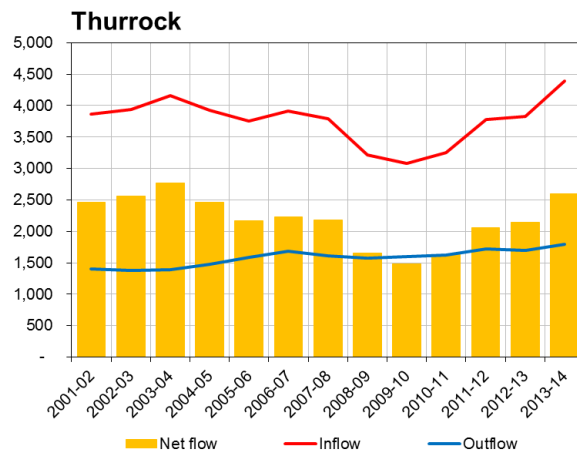
All five TGSE local authorities have experienced in-migration from London Boroughs which is consistently higher than the respective out-migration to London Boroughs over the 2001/02-2013/14 period. In line with to the TGSE as a whole, there has been significant variation in in-migration to the individual local authorities, with the out-migration remaining relatively stable over time.

Thurrock experienced the highest net inflow of migrants from Greater London in that period, with an average annual inflow of 2,183 migrants. The lowest net inflow was estimated in Rochford, with an average of 522 migrants per year over the 2001/02-2013/14 period.

Basildon, Thurrock and Southend-on-Sea show a historic relationship which aligns with the TGSE picture described previously. Whilst the inflow of people from London fell notably from 2007/08, the rate of flow had returned to levels seen prior to the recession by 2013/14.

In contrast, Castle Point and Rochford – whilst also seeing a notable reduction in the scale of people moving from London into these authorities after 2007-08 – have not seen levels recover back to those seen prior to the recession with in-flows remaining consistently low even in the more recent years of data.

Developing a variant scenario to recognise migration changes associated with London

The GLA projections provide an alternative perspective on population change in the London Boroughs. However, they provide only partial evidence on how the lower population growth in London would manifest itself as higher in-migration to areas outside London and to the TGSE local authorities, in particular.

Following collaborative discussions with the GLA, Edge Analytics has been provided with additional model output to enable an assessment of the effect of higher out-migration flows from London. The GLA has provided detailed information on the internal migration flows that underpin its **Central** scenario. This scenario assumes that the out-migration rates from London would increase by 5% after 2017 and in-migration rates would reduce by 3%.

Within the GLA model, internal migration flows are modelled using age- and sex-specific migration probabilities. For the migration exchange between London Boroughs and areas outside London, the model adopts a three-zone system: South East, East and Rest-of-UK. It does not explicitly model the flows between each London Borough and each individual local authority outside of Greater London.

For the **Central** scenario, the net migration profile for Greater London suggests a step-change in 2018 in the net population gain that is experienced by all non-London English local authority areas; rising from +58,000 annual net gain in 2017 to over +78,000 net gain the following year. The higher net migration continues on an upward trend but rising more slowly to 2030, flattening thereafter.

Figure 2.25   Net Migration with Greater London – GLA Central Scenario
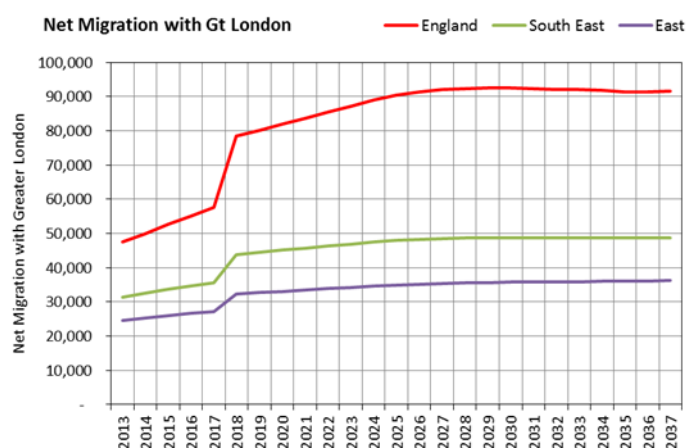
For the South East and East macro regions, the step-change is replicated, albeit on a smaller scale. Net migration to the South East rises from approximately +36,000 in 2017, to +44,000 in 2018, an uplift of +8,000. Net migration to the East rises from approximately +27,000 in 2017, to +32,000 in 2018, an uplift of +5,000. The trend in net migration after 2018 appears to be flatter in the East than the South East, an important consideration for the analysis presented here, with all TGSE areas falling within the East region.

Whilst the GLA scenarios suggest higher net out-migration from London Boroughs compared to recent trends, the latest 2012-based SNPP from ONS suggest something similar with regard to overall net in-migration to the TGSE local authorities. To evaluate the likely extent of the GLA's

Central scenario net migration assumptions upon those implied by the 2012-based SNPP, a process of data matching and estimation has been required.

The datasets that have been used to complete the estimation and matching, include the following:

- Historical migration flows (2006/7-2012/13) to/from London to each local authority district drawn from the Patient Register Database System (PRDS).

- Historical migration components of change from the ONS mid-year population estimates.

- GLA 2013 round **Central** scenario, migration flows from London to macro regions.

- 2012-based SNPP projection, migration components of change.

The steps that have been taken to align the migration information from the GLA **Central** and **SNPP-2012** scenarios are as follows:

- Using historical PRDS in-migration and out-migration data, the GLA macro region migration flows have been disaggregated to local authority area totals.

- Using the same historical PRDS information, the proportion of each local authority's 2012-based SNPP in-migration and out-migration that is associated with Greater London has been derived.

- Comparing the GLA **Central** and the 2012-based SNPP estimates of in-migration and out-migration from/to Greater London, provides a ratio with which the **SNPP-2012** assumptions can be altered to match those implied by the GLA **Central** alternative.

- Within the estimation procedure, control totals have been provided by the macro-region migration statistics of the GLA's **Central** scenario and by the Greater London net migration totals suggested by the 2012-based SNPP.

- The net migration assumptions from the GLA and 2012-based SNPP are consistent in 2013 for each local authority area, deviating thereafter.

- All estimation has taken account of the age-sex profiles associated with the respective migration statistics.

The results of the estimation process for the South East and East macro areas are summarised below. Whilst the GLA **Central** scenario models a step-change in the net migration effect with Greater London, the 2012-based SNPP suggests a gradual increase over the forecast period. The 2012-based SNPP assumptions on net migration gain from Greater London are estimated to reach and then exceed the GLA **Central** assumption, at a later point in the forecast period for the South East than the East.

Figure 2.26   Net Migration with Greater London, South East – GLA Central scenario and SNPP-2012
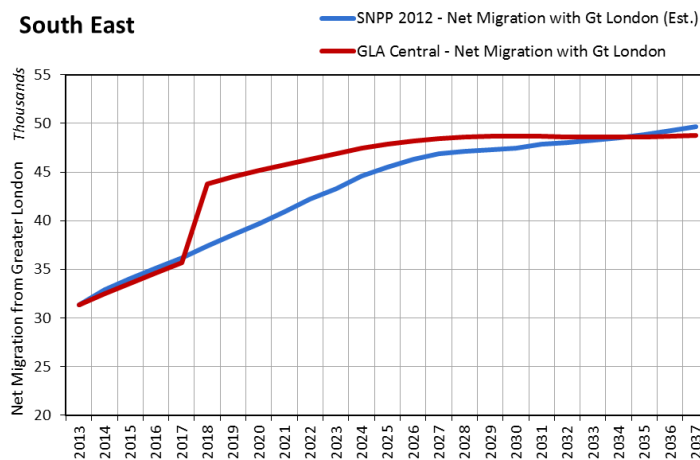
Figure 2.27   Net Migration with Greater London, East – GLA Central scenario and SNPP-2012
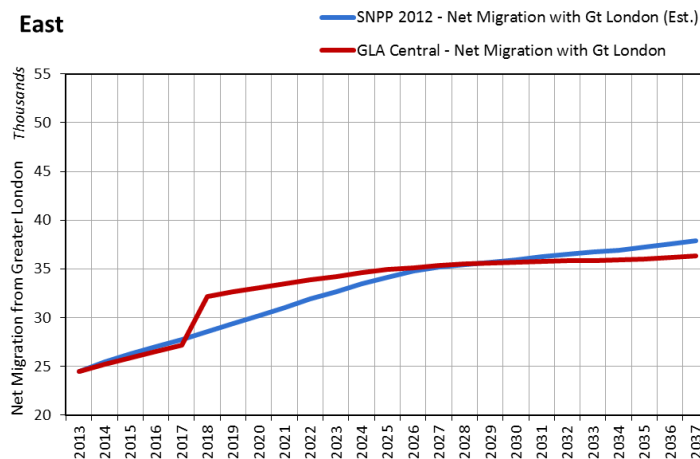
For the TGSE local authority areas, which are located within the East region, the GLA **Central** scenario would suggest higher growth than **SNPP-2012** if a 15-year forecast horizon was considered. However, there would be less of a difference over a 25-year forecast period as the 2012-based SNPP migration assumptions continue to rise, whilst the GLA **Central** migration assumptions remain at a relatively constant level.

The comparison of migration assumptions from the GLA **Central** and the 2012-based SNPP has been used to formulate this additional **SNPP-2012-LDN** scenario which considers the growth impact of the migration uplift suggested by the GLA **Central** scenarios, over-and-above what is implied by the 2012-based SNPP.

Since this analysis was conducted as part of the Phase 7 EPOA project, GLA has released an updated 2014 round of projections, with the detailed outputs made available at the end of July 2015.

GLA produced two trend-based scenarios which are alternatives to the **Central** scenario used in the Edge Analytics analysis:

• **Short-term** scenario which uses migration history mid-2009 to mid-2013

• **Long-term** scenario which uses migration history from mid-2001 to mid-2013.

The chart below compares the average annual growth through natural change and net migration implied by these new scenarios with the assumptions underpinning the 2013 round **Central** scenario and the 2012-based SNPP.

Figure 2.28   Annual growth assumption – GLA scenarios vs SNPP-2012
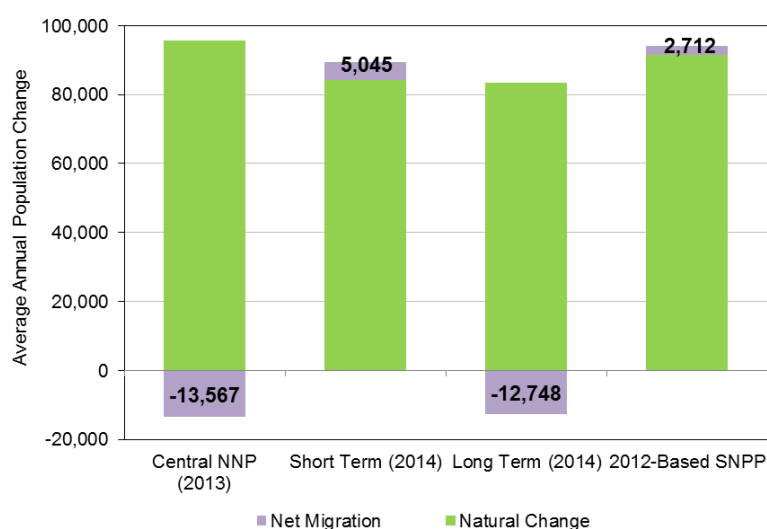
The new **Long-term** scenario produces a very similar net migration impact to the 2013 round **Central** alternative. This suggests it would have limited impact on the **SNPP-2012-LDN** outcomes if used instead of the **Central** scenario.

Two additional scenarios that vary the **SNPP-2012** international migration assumptions to follow the high and low international migration variants from ONS have also been considered. However, given the relatively low impact these variant international migration assumptions had on the scenario outcomes, the two scenarios have been excluded from the analysis presented in this report.

Scenario Outcomes
For each of the TGSE local authorities, the demographic projection outcomes are summarised in the form of a chart and an accompanying tables of statistics.

The chart illustrates the 2001-2037 trajectory of population change resulting from each scenario.

The tables summarise the change in population and household numbers that result from each scenario for the period 2014-2037. The first table considers the household and dwelling growth outcomes that would result from the application of the 2012-based household formation assumptions (HH-12) and the second presents the outcomes resulting from the application of

the modified set of the 2012-based household formation assumptions that for the younger age groups return the headship rates to their 2001 values (HH-12 R).

In each table, the scenarios are ranked according to the estimated level of population change over the forecast period. Each table illustrates the average annual net migration associated with the population change, plus the expected average annual dwelling growth.

Basildon

The **SNPP-2012** scenario records a 15.0% growth in Basildon's population to 2037 and an estimated dwelling requirement of 659 per year, assuming that household formation rates follow the trend in the 2012-based household model.

The migration uplift associated with the GLA's **Central** scenario (**SNPP-2012-LDN**) suggests higher population growth at 15.6% to 2037, with an associated annual dwelling requirement of 721 per year.

The **PG-10yr** scenario suggests population growth that is lower than the **SNPP-2012** at 14.5% whereas the **PG-5yr** scenario records the highest population growth at 15.9%. The resulting dwelling growth estimates are 693 and 731 per year respectively.

The '**X**' scenarios suggest the lowest rate of population growth of the PG scenarios as they exclude the UPC adjustment that was allocated to the population to account for undercount between the 2001 and 2011 Censuses.

The **Natural Change** scenario, excluding the impact of migration in its forecast, suggests population growth of 8.4% to 2037, with an associated annual dwelling requirement of 538 per year.

The application of the alternative headship rates assumptions (HH-12 R) results in a higher average annual dwelling requirement ranging from 581 to 774 per year.

Figure 2.29   Basildon Demographic Projections, Population Growth, 2001 – 2037
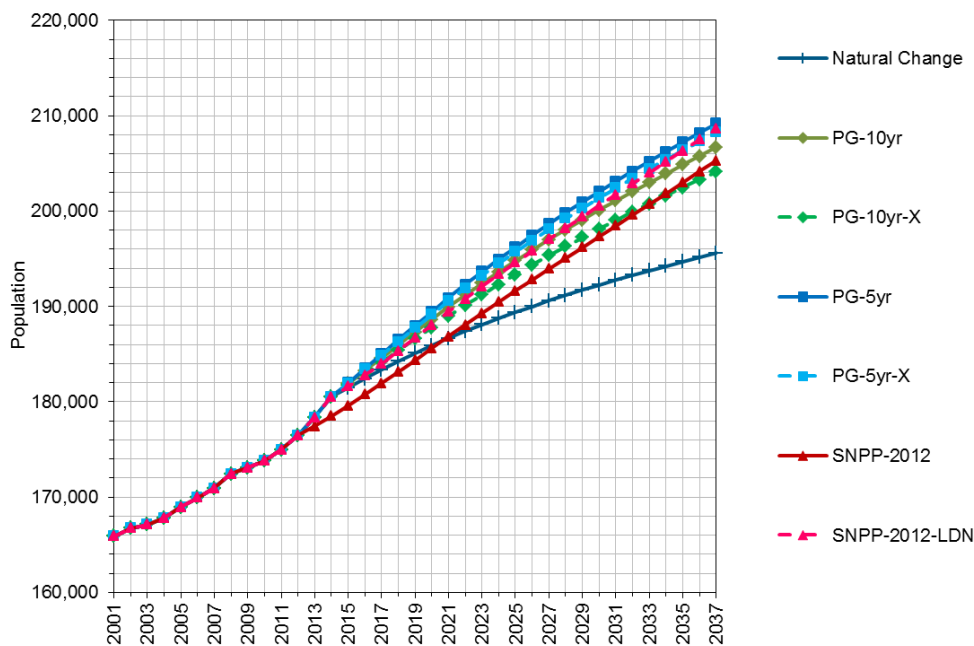
Figure 2.30   Basildon Demographic Projections Outcomes (HH-12), 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
PG-5yr	28,671	15.9%	16,519	21.9%	361	731
SNPP-2012-LDN	28,125	15.6%	16,300	21.6%	410	721
PG-5yr-X	27,748	15.4%	15,623	20.7%	331	691
SNPP-2012	26,766	15.0%	14,900	19.9%	351	659
PG-10yr	26,155	14.5%	15,672	20.7%	283	693
PG-10yr-X	23,594	13.1%	14,095	18.7%	193	624
Natural Change	15,077	8.4%	12,155	16.1%	0	538

Figure 2.31   Basildon Demographic Projections Outcomes (HH-12 R), 2014 – 2037

Scenario (HH-12 R)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
PG-5yr	28,671	15.9%	17,495	23.2%	361	774
SNPP-2012-LDN	28,125	15.6%	17,245	22.8%	410	763
PG-5yr-X	27,748	15.4%	16,602	22.0%	331	735
SNPP-2012	26,766	15.0%	15,840	21.2%	351	701
PG-10yr	26,155	14.5%	16,643	22.0%	283	736
PG-10yr-X	23,594	13.1%	15,072	19.9%	193	667
Natural Change	15,077	8.4%	13,140	17.4%	0	581

Castle Point

The **SNPP-2012** scenario records an 11.6% growth in Castle Point's population to 2037 and an estimated dwelling requirement of 286 per year, assuming that household formation rates follow the trend in the 2012-based household model (**HH-12**).

The migration uplift associated with the GLA's **Central** scenario (**SNPP-2012-LDN**) suggests slightly higher population growth at 11.8% to 2037, with an associated annual dwelling requirement of 296 per year. This scenario records the highest growth outcome of all scenarios.

The **PG-10yr** and **PG-5yr** scenarios suggest population growth rates that are lower than the **SNPP-2012,** reflecting longer-term net migration assumptions in the **SNPP-2012** that are higher than recent historical levels.

The 'X' scenarios imply higher rates of population growth than the equivalent scenarios that include UPC in the historical data; a reflection of the adjustment that was allocated to the population to account for an overcount between the 2001 and 2011 Censuses.

The **Natural Change** scenario, excluding the impact of migration in its forecast, suggests population decline of 3.8% to 2037, with an annual dwelling requirement of just 27 per year.

The application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement ranging from 56 to 326 per year.

Figure 2.32   Castle Point Demographic Projections, Population Growth, 2001 – 2037
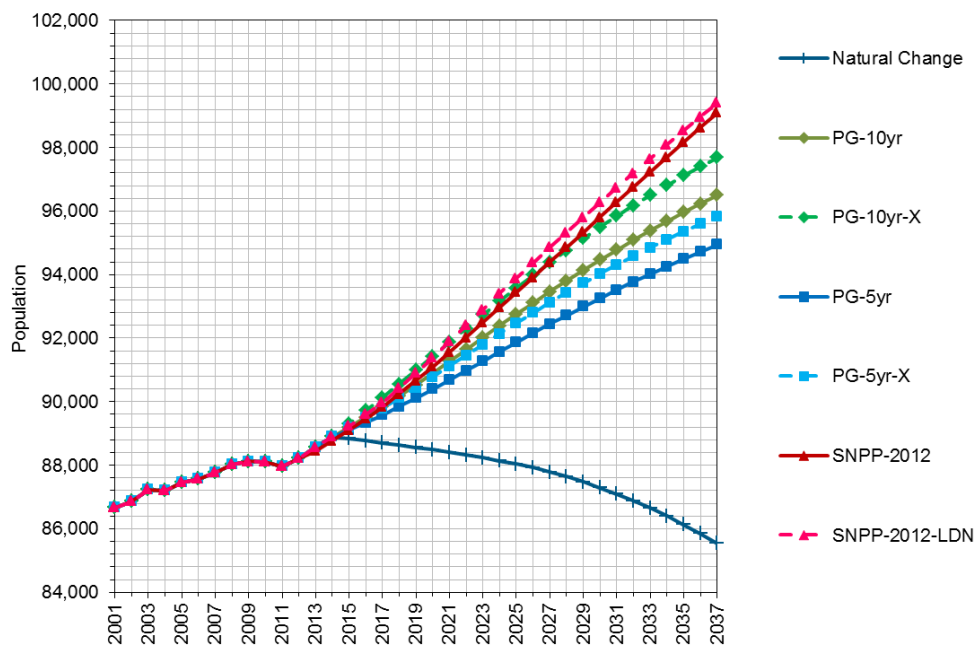
Figure 2.33   Castle Point Demographic Projections Outcomes (HH-12), 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
SNPP-2012-LDN	10,493	11.8%	6,574	17.8%	709	296
SNPP-2012	10,327	11.6%	6,368	17.1%	702	286
PG-10yr-X	8,784	9.9%	5,762	15.6%	626	259
PG-10yr	7,597	8.5%	5,731	15.5%	560	258
PG-5yr-X	6,926	7.8%	4,893	13.2%	535	220
PG-5yr	6,033	6.8%	4,871	13.2%	490	219
Natural Change	-3,364	-3.8%	609	1.6%	0	27

Figure 2.34   Castle Point Demographic Projections Outcomes (HH-12 R), 2014 – 2037

Scenario (HH-12 R)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
SNPP-2012-LDN	10,493	11.8%	7,241	19.6%	709	326
SNPP-2012	10,327	11.6%	7,031	19.0%	702	316
PG-10yr-X	8,784	9.9%	6,441	17.4%	626	290
PG-10yr	7,597	8.5%	6,372	17.3%	560	286
PG-5yr-X	6,926	7.8%	5,558	15.0%	535	250
PG-5yr	6,033	6.8%	5,509	14.9%	490	248
Natural Change	-3,364	-3.8%	1,249	3.4%	0	56

Rochford

The **SNPP-2012** scenario records a 12.5% growth in Rochford's population to 2037 and an estimated dwelling requirement of 265 per year, assuming that household formation rates follow the trend in the 2012-based household model.

The migration uplift associated with the GLA's **Central** scenario (**SNPP-2012-LDN**) suggests slightly higher population growth at 12.9% to 2037, with an associated annual dwelling requirement of 284 per year.

The **PG-10yr** scenarios suggest population growth rates that are higher than the **PG-5yr** alternatives, reflecting the low levels of migration experienced in the latest years of the historical period.

The '**X**' scenarios imply lower rates of population growth than the equivalent scenarios that include UPC in the historical data; a reflection of the adjustment that was allocated to the population to account for an undercount between the 2001 and 2011 Censuses.

The **Natural Change** scenario, excluding the impact of migration in its forecast, suggests population decline of 0.2% to 2037, with an annual dwelling requirement of 93 per year.

The application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 125 to 332 per year.

Figure 2.35   Rochford Demographic Projections, Population Growth, 2001 – 2037

Figure 2.36   Rochford Demographic Projections Outcomes (HH-12), 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
PG-10yr	11,293	13.3%	6,761	19.7%	500	302
SNPP-2012-LDN	10,895	12.9%	6,359	18.5%	489	284
PG-10yr-X	10,786	12.7%	6,114	17.8%	479	273
SNPP-2012	10,560	12.5%	5,934	17.3%	474	265
PG-5yr	8,381	9.9%	5,158	15.0%	376	230
PG-5yr-X	8,157	9.6%	4,803	14.0%	365	214
Natural Change	-132	-0.2%	2,093	6.1%	0	93

Figure 2.37   Rochford Demographic Projections Outcomes (HH-12 R), 2014 – 2037

Scenario (HH-12 R)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
PG-10yr	11,293	13.3%	7,451	21.8%	500	332
SNPP-2012-LDN	10,895	12.9%	6,990	20.4%	489	312
PG-10yr-X	10,786	12.7%	6,824	19.9%	479	304
SNPP-2012	10,560	12.5%	6,566	19.1%	474	293
PG-5yr	8,381	9.9%	5,800	16.9%	376	259
PG-5yr-X	8,157	9.6%	5,461	15.9%	365	244
Natural Change	-132	-0.2%	2,809	8.2%	0	125

Southend-on-Sea

The **SNPP-2012** scenario records a 17.2% growth in Southend-on-Sea's population to 2037 and an estimated dwelling requirement of 848 per year, assuming that household formation rates follow the trend in the 2012-based household model.

The migration uplift associated with the GLA's **Central** scenario (**SNPP-2012-LDN**) suggests slightly higher population growth at 17.8% to 2037, with an associated annual dwelling requirement of 895 per year.

The **PG-10yr** and **PG-5yr** scenarios suggest population growth rates that are higher than the **SNPP-2012,** reflecting the effect of the historical UPC adjustment upon the calibrated future migration assumptions. **PG-10yr** records the highest growth outcome of all scenarios.

The '**X**' scenarios imply lower rates of population growth than the equivalent scenarios that include UPC in the historical data; a reflection of the large adjustment that was allocated to the population to account for discrepancies in the mid-year population estimates and the 2001 and 2011 Census counts.

The **Natural Change** scenario, excluding the impact of migration in its forecast, suggests population growth of 4.8% to 2037, with an annual dwelling requirement of 385 per year.

The application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 438 to 1,058 per year.

Figure 2.38   Southend-on-Sea Demographic Projections, Population Growth, 2001 – 2037
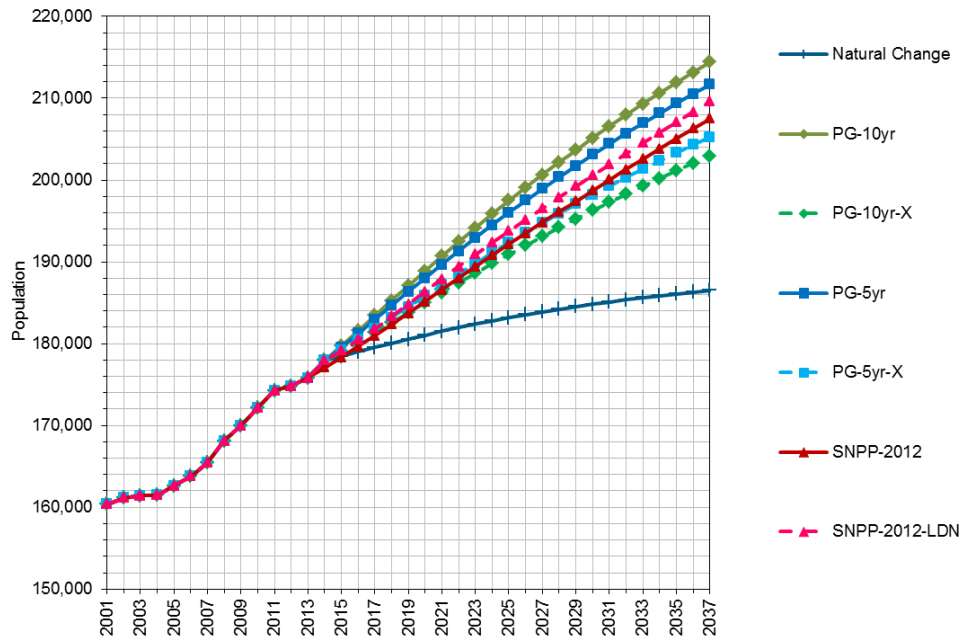
Figure 2.39   Southend-on-Sea Demographic Projections Outcomes (HH-12), 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
PG-10yr	36,463	20.5%	21,828	28.4%	1044	999
PG-5yr	33,718	19.0%	20,140	26.2%	993	922
SNPP-2012-LDN	31,638	17.8%	19,562	25.4%	895	895
SNPP-2012	30,394	17.2%	18,528	24.1%	841	848
PG-5yr-X	27,304	15.3%	16,824	21.9%	755	770
PG-10yr-X	25,010	14.1%	16,265	21.2%	631	744
Natural Change	8,567	4.8%	8,413	10.9%	0	385

Figure 2.40   Southend-on-Sea Demographic Projections Outcomes (HH-12 R), 2014 – 2037

Scenario (HH-12 R)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
PG-10yr	36,463	20.5%	23,115	30.1%	1,044	1,058
PG-5yr	33,718	19.0%	21,372	27.8%	993	978
SNPP-2012-LDN	31,638	17.8%	20,816	27.1%	895	953
SNPP-2012	30,394	17.2%	19,769	25.8%	841	905
PG-5yr-X	27,304	15.3%	18,032	23.4%	755	825
PG-10yr-X	25,010	14.1%	17,496	22.7%	631	801
Natural Change	8,567	4.8%	9,569	12.4%	0	438

Thurrock

The **SNPP-2012** scenario records a 23.1% growth in Thurrock's population to 2037 and an estimated dwelling requirement of 828 per year, assuming that household formation rates follow the trend in the 2012-based household model.

The migration uplift associated with the GLA's **Central** scenario (**SNPP-2012-LDN**) suggests higher population growth at 23.9% to 2037, with an associated annual dwelling requirement of 874 per year. This scenario records the highest growth outcome of all scenarios.

The **PG-10yr** scenarios suggest population growth rates that are higher than the **PG-5yr** alternatives, reflecting the lower levels of migration experienced in the latest years of the historical period.

The '**X**' scenarios imply slightly higher rates of population growth than the equivalent scenarios that include UPC in the historical data; a reflection of the adjustment that was allocated to the population to account for an overcount between the 2001 and 2011 Censuses.

The **Natural Change** scenario, excluding the impact of migration in its forecast, suggests population growth of 13.1% to 2037, with an annual dwelling requirement of 629 per year.

The application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 677 to 919 per year.

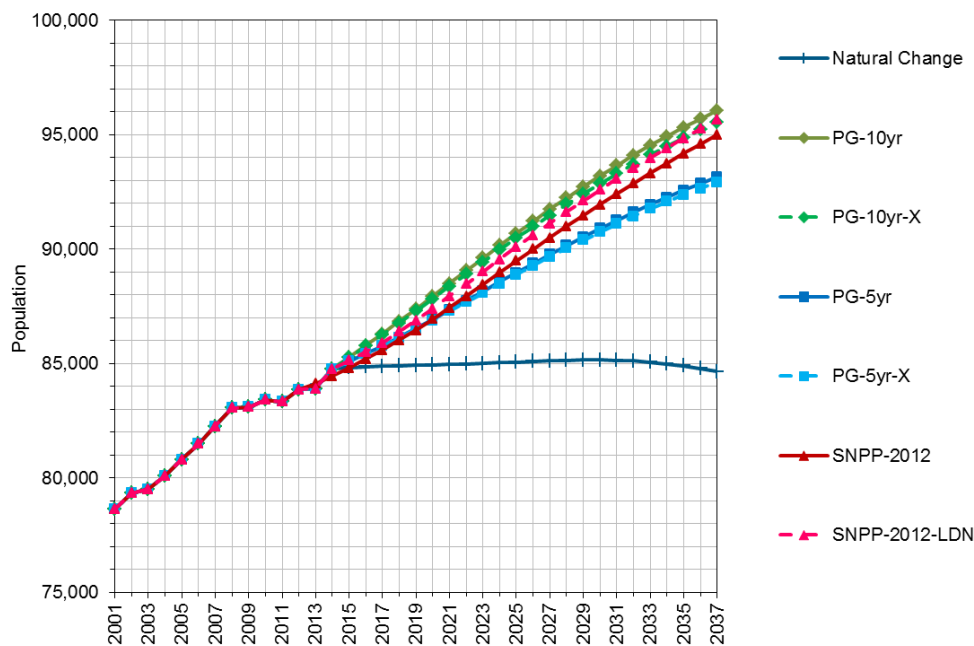**Figure 2.41   Thurrock Demographic Projections, Population Growth, 2001 – 2037**
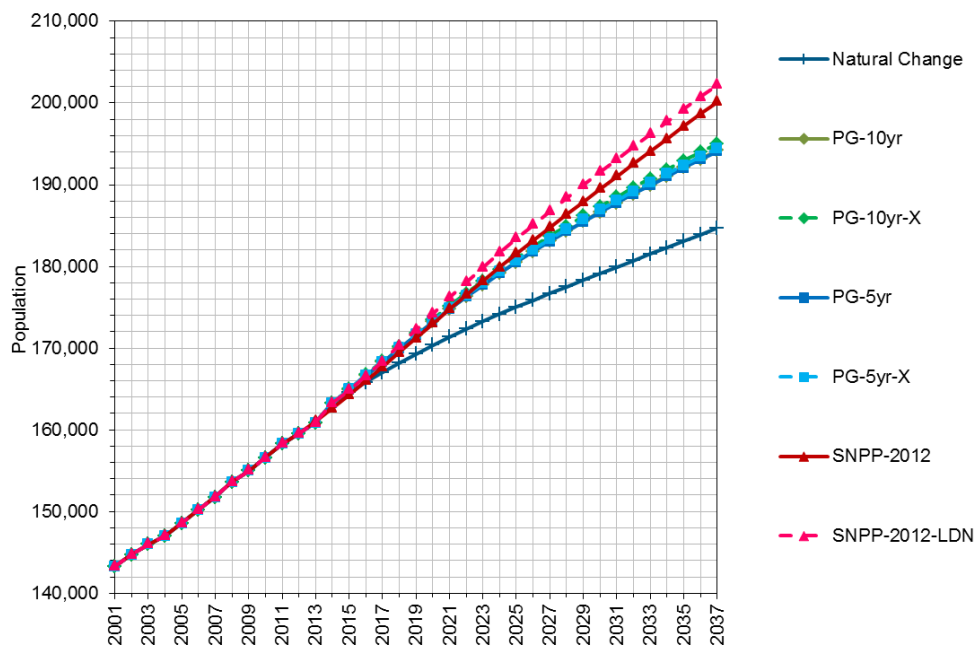
Figure 2.42   Thurrock Demographic Projections Outcomes (HH-12), 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
SNPP-2012-LDN	38,943	23.9%	19,624	30.4%	459	874
SNPP-2012	37,511	23.1%	18,586	28.8%	396	828
PG-10yr-X	31,776	19.5%	15,953	24.7%	110	710
PG-5yr-X	31,197	19.1%	15,521	24.1%	130	691
PG-10yr	30,930	18.9%	15,296	23.7%	41	681
PG-5yr	30,841	18.9%	15,173	23.5%	93	676
Natural Change	21,408	13.1%	14,123	21.9%	0	629

Figure 2.43   Thurrock Demographic Projections Outcomes (HH-12 R), 2014 – 2037

Scenario (HH-12 R)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
SNPP-2012-LDN	38,943	23.9%	20,635	32.1%	459	919
SNPP-2012	37,511	23.1%	19,594	30.5%	396	873
PG-10yr-X	31,776	19.5%	16,987	26.4%	110	757
PG-5yr-X	31,197	19.1%	16,514	25.7%	130	735
PG-10yr	30,930	18.9%	16,351	25.4%	41	728
PG-5yr	30,841	18.9%	16,172	25.1%	93	720
Natural Change	21,408	13.1%	15,192	23.6%	0	677

TGSE

Modelling outputs for TGSE as a whole are presented below.

Figure 2.44 TGSE Demographic Projections, Population Growth, 2001 – 2037
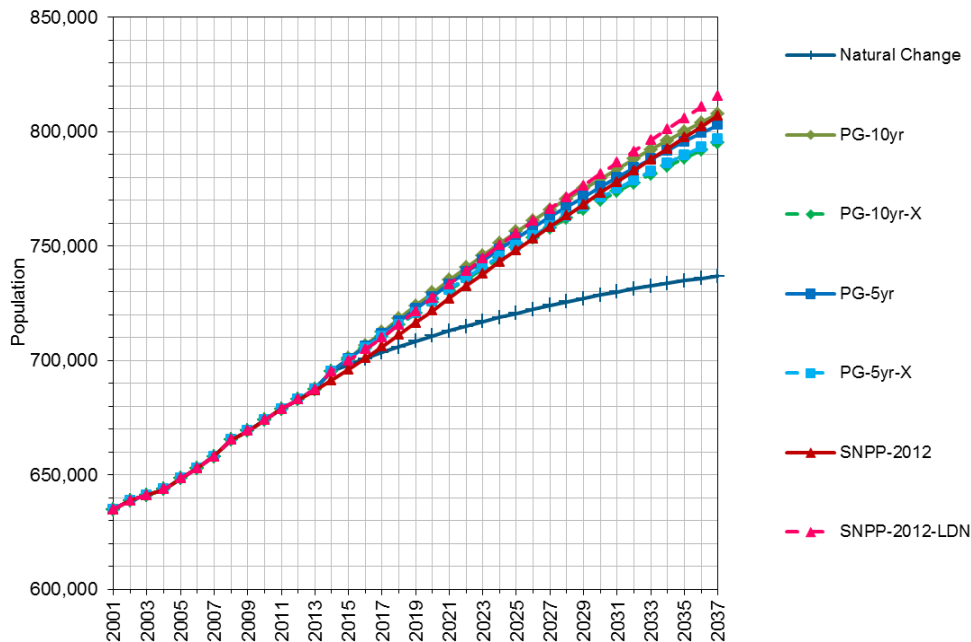
Figure 2.45 TGSE Demographic Projections Outcomes (HH-12), 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
SNPP-2012-LDN	120,094	17.3%	68,418	23.7%	2,961	3,070
SNPP-2012	115,558	16.7%	64,317	22.4%	2,764	2,886
PG-10yr	112,437	16.2%	65,289	22.6%	2,428	2,933
PG-5yr	107,644	15.5%	61,861	21.5%	2,312	2,777
PG-5yr-X	101,331	14.6%	57,664	20.0%	2,116	2,587
PG-10yr-X	99,950	14.4%	58,188	20.2%	2,039	2,610
Natural Change	41,556	6.0%	37,393	13.0%	0	1,673

Figure 2.46   TGSE Demographic Projections Outcomes (HH-12 R), 2014 – 2037

Scenario (HH-12 R)	Change 2014 - 2037				Average per year	
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings
SNPP-2012-LDN	120,094	17.3%	72,925	25.3%	2,961	3,272
SNPP-2012	115,558	16.7%	68,800	23.9%	2,764	3,087
PG-10yr	112,437	16.2%	69,933	24.3%	2,428	3,141
PG-5yr	107,644	15.5%	66,347	23.0%	2,312	2,979
PG-5yr-X	101,331	14.6%	62,167	21.6%	2,116	2,789
PG-10yr-X	99,950	14.4%	62,820	21.8%	2,039	2,818
Natural Change	41,556	6.0%	41,959	14.6%	0	1,877

Implications of the Demographic Evidence

This Appendix has presented the 2012-based household and population projections, analysing this dataset within the context of historic trends. This allows an understanding of the extent to which the projections reflect historic evidence – highlighting any instances where they have been influenced by specific local issues – and the extent to which London has shaped trends has also been considered.

This section draws together this analysis, for both TGSE as a whole and each local authority.

TGSE

The analysis of the historical demographic evidence in TGSE shows that there has been a relative consistency in the impact of natural change on population growth in each of the areas over the last five (2009/10-2013/14) and ten (2004/05-2013/14) years. There has been much more variation between areas in the impact of net internal migration when comparing the last five and ten years of historical evidence. Historically, international migration has had a relatively small impact upon population growth in the TGSE area.

Population estimates were subject to relatively modest revisions following the release of the 2011 Census results in all TGSE local authorities, except Southend-on-Sea. In this area, the ONS has identified a major upward adjustment through UPC. This has important implications when interpreting the range of scenarios presented in this report. The treatment of UPC in Southend-on-Sea inflates the effect of international migration.

The rate of population growth in the TGSE area over the last five and ten years is relatively similar to that projected in the SNPP-2012. This hides considerable differences in the underlying components of change, especially internal migration. The 2012-based SNPP assumptions on internal migration are significantly higher than the last five and ten year averages would suggest. In contrast, international migration is a very small component of the 2012-based SNPP growth projection.

Looking at the historical demographic influence of TGSE's proximity to London shows a consistently high net inflow from Greater London to the TGSE local authorities, with the out-migration to London remaining relatively stable and the in-migration to London fluctuating over

time. Most significantly, the TGSE in-migration from London fell from 2007/08 but has recovered in the latest years of evidence.

In the TGSE areas, the GLA projection suggests out-migration assumptions that are consistently higher than those suggested by the 2012-based SNPP, with the exception of Castle Point, which more closely follows the 'East' region trend.

Local Authority Summaries

Whilst it is important to understand trends across TGSE as a whole – given that this is the housing market area across which needs are assessed in this study – such an approach can hide considerable differences between individual local authorities. The analysis below therefore summarises key points emerging from the analysis for each authority in TGSE.

Basildon

- Basildon has seen a relatively consistent trajectory of population growth since the late 1990s, with natural change a key driver of growth – with births exceeding deaths – although the impact of internal and international migration varies over time.

- Internal migration has generally had a negative impact upon population change in Basildon, although more recent trends since 2010 – in consistently showing a net inflow of migrants to the borough – suggest a departure from this longer term trend. International migration is not a significant contributor of population growth in Basildon, but the 2013/14 data suggests a comparatively strong net inflow compared to previous evidence.

- The MYE for Basildon were subject to a slight positive adjustment due to the under-count between Census years, but this represents a comparatively small level of correction in the context of the growth seen.

- The historic relationship between Basildon and Greater London closely reflects the TGSE profile as a whole, with the inflow of people from London falling notably from 2007/08 – at the onset of the recession – before recovering to pre-recession levels by 2013/14.

- The **SNPP-2012** aligns most closely with an extrapolation of a (pre 2012) five year population trend, slightly exceeding the longer term 10 year and 30 year trends.

- Natural change is projected to play a significant role in driving population growth, with this closely aligning with the historic trend. The projected level of net in-migration surpasses both five and ten year historic trends, however, although the projected scale of net international migration is slightly underestimated within this historic context.

- The population of Basildon in 2014 was around 2,000 higher than projected under the **SNPP-2012**, primarily due to higher levels of internal migration than expected.

- Based on the alternative scenarios modelled by Edge Analytics, a 5 year Past Growth trend (**PG-5yr**) would exceed the level of population growth projected under the **SNPP-2012**, with a 10 year trend (**PG-10yr**) suggesting a slightly lower level of growth. The SNPP-London scenario (**SNPP-2012-LDN**) uplifts the level of population growth from the **2012 SNPP**, but continues to fall slightly below the 5 year trend.

- Whilst the **SNPP-2012** growth outcome aligns quite closely with pre 2012 historical population change, the latest demographic evidence suggests accelerated growth in Basildon. For this reason the demographic starting point for analysis should be based on the **SNPP-2012** with consideration also given to the <u>range</u> of outcomes suggested by the **SNPP-2012-LDN** and **PG-5yr** scenarios reflecting the implications of more recent levels of strong growth.

Castle Point

- Castle Point has seen the smallest population growth of the TGSE authorities, with a sustained population decline through the 1990s before a subsequent increase up to the recession, which slowed population growth in the borough. Since 2011, however, there has been a return to the pre-recession growth trajectory.

- Net internal migration is the main driver of population growth in Castle Point, while natural change – with deaths outnumbering births – has been a negative contributor to population change.

- There was an over-count of the population between 2001 and 2011, resulting in a negative UPC adjustment in Castle Point.

- The flow of migration from London to Castle Point fell following the recession, and has not recovered to pre-recession levels.

- The **SNPP-2012** does not appear to align with any extrapolation of (pre 2012) population growth trends, with the projected growth exceeding historic trends in the borough.

- The scale of growth projected under the **SNPP-2012** is underpinned by a high inflow of internal migrants, with an assumed inflow that is around double that seen annually over the past five and ten years. This is projected to offset the negative impact of natural change, with deaths expected to outnumber births to a greater extent than seen over the past five or ten years.

- There is notable alignment between the **SNPP-2012** and recently mid-year population estimates, suggesting that population growth over the past two years is in line with that projected for Castle Point.

- Based on the modelling undertaken by Edge Analytics, continuation of a 10 year past growth trend (**PG-10yr**) would exceed a 5 year trend (**PG-5yr**), although both of these trajectories are surpassed by the **SNPP-2012** and the uplift suggested by the London migration effect (**SNPP-2012-LDN**).

- Whilst the **SNPP-2012** does present substantial departure from historical trends in growth through internal migration, it provides the most appropriate demographic starting point for analysis. This also recognises the potential identified impact of London migration upon growth in the area.

Rochford

- Rochford has seen sustained population growth since the mid-1990s, although the growth did slow slightly following the onset of the recession. This has been driven to a

significant degree by high levels of net internal migration, although this has fluctuated over the past five years before returning to pre-recession levels in 2013/14. Natural change and net international migration have had only a limited impact on population change in the district historically.

- The population was slightly undercounted between 2001 and 2011, resulting in a small positive UPC adjustment.

- The flow of migration from London to Rochford fell following the recession, and has not recovered to pre-recession levels.

- The **SNPP-2012** aligns most closely with an extrapolation of population growth over the past ten years.

- The population of Rochford in mid-2014 is relatively close to that projected by the **SNPP-2012**, although levels of migration in 2013/14 were notably higher than expected.

- Based on the demographic modelling undertaken by Edge Analytics, the **SNPP-2012** sits between a five year (**PG-5yr**) and ten year past growth (**PG-10yr**) trend.

- Given the distinctive shift in Rochford's migration profile following the recession and its subsequent recovery, it is appropriate to consider a range of demographic outcomes. The **SNPP-2012** scenario represents an appropriate starting point for considering demographic needs but in the context of the historic evidence consideration should also be given to the **PG-10yr** scenario in considering demographic needs. This range of outcomes encompasses the effect of a higher London growth effect.

Southend-on-Sea
- Southend-on-Sea saw a small population decline between 1991 and 2001, before reverting to population growth from 2001. According to the ONS, this reflected a number of different drivers, with births beginning to outnumber deaths early in this period and net internal migration playing an increasingly important role in driving population growth.

- The population of Southend-on-Sea was subject to a very substantial upward UPC adjustment between 2001 and 2011, implying a potential undercount at the 2001 Census that is, however, difficult to verify.

- While the inflow of migrants from Greater London to Southend-on-Sea fell during the recession, this has recovered to pre-recession levels over more recent years.

- The **SNPP-2012** aligns most closely with an extrapolation of population growth over the (pre 2012) past ten years. Both the longer term 20 and 30 year trends, however, are notably exceeded by the **SNPP-2012**, with this projection underpinned by high levels of net internal migration and a continued positive natural change in the population. The latter is in line with historical trends over the past five and ten years, although the scale of net internal migration assumed exceeds these historical trends.

- The population of Southend-on-Sea in mid-2014 is slightly higher than projected under the **SNPP-2012**, with this largely attributable to higher than expected levels of internal

migration in 2013/14 and a net inflow of international migrants, rather than the projected net outflow.

- With the UPC adjustment of such significance in Southend-on-Sea, the most appropriate use of the historical evidence is more difficult to define. Whilst a large proportion of the UPC adjustment may be due to Census count issues, an element is likely also to be associated with international migration. For this reason the **PG-10yr** and **PG-5yr** scenarios are likely to be an over-estimate of growth based upon uncertain historical evidence. It would seem reasonable that the **SNPP-2012** provides the most appropriate demographic starting point for this analysis.

Thurrock

- Thurrock has seen sustained population growth since 1991, with the greatest proportionate growth of the TGSE authorities over this time. Over the past decade, this has been driven by natural change – with births exceeding deaths – while net internal and international migration has had varied but largely positive impacts on Thurrock's population.

- There was a small negative UPC adjustment applied to correct the minor over-count of population in Thurrock between 2001 and 2011.

- The net outflow from Thurrock to London has remained relatively steady, with the net inflow – though falling following the recession – increasing to surpass pre-recession levels in recent years.

- The scale of population growth implied by the **SNPP-2012** is relatively closely aligned with historic trends in Thurrock, with this underpinned to a significant degree by natural change. A net inflow of internal and international migrants is also projected, with the former assumed to exceed the levels seen historically over the past five and ten years. A slight fall in international migration is projected, however.

- The population of Thurrock in mid-2014 was higher than expected under **SNPP-2012**, largely due to higher than expected levels of both internal and international migration in 2013/14.

- The alternative **PG-5yr** and **PG-10yr** scenarios suggest a lower rate of population growth than the **SNPP-2012**. Natural change is a key driver of growth in each of these scenarios but the **SNPP-2012** assumes a more substantial impact of migration over the forecast period. Given the likelihood of higher net in-migration in the future, the **SNPP-2012** would appear to provide the most appropriate demographic starting point for analysis. This also recognises that the London effect suggests even higher migration impacts may be reflected in the future to the area.

Appendix 3: Considering the Economic Evidence

Introduction

Economic forecasts are one consideration in producing an informed assessment of housing need. They are important in estimating the number of homes required in an area to enable the economy's potential to be achieved.

The National Planning Policy Framework (NPPF) states that:

'To help achieve economic growth, local planning authorities should plan proactively to meet the development needs of business and support an economy fit for the 21st century'.

In informing the application of this in terms of housing, the Planning Practice Guidance (PPG) states that:

'Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area'.

This Appendix considers the two up-to-date economic forecasts available for consideration in the Thames Gateway South Essex SHMA: Experian and East of England Forecasting Model (EEFM) produced by Oxford Economics.

Given the nature of forecasts, no two are the same. Different forecast producers use different assumptions and these can have important implications for housing need. This Appendix considers both the employment (jobs) outputs of the forecasts as well as the approaches taken to key assumptions relating to the modelling of labour force change. In order to understand the implications for housing need estimates, the Appendix includes analysis undertaken by Edge Analytics using the POPGROUP model. This has involved the modelling of variant employment-led projections using input labour force assumptions derived both from the economic forecasts themselves as well as benchmark alternative assumptions routinely applied by Edge Analytics in its modelling.

As part of this study, Experian was commissioned to prepare bespoke modelling outputs using its regional model. The outputs of this modelling, presented within this Appendix, provide further evidence as to the important relationship between forecast job growth and demographic inputs in the forecasts.

Overview of the Economic Forecast Models

Experian
Experian's UK Regional Planning Service produces economic forecasts for local authority areas as well as at regional and national level. These include forecast change in production (GDP and GVA); labour market (workplace and workforce jobs, economic activity) and demographics (population size by age group).

Historic population data is based on ONS mid-year estimates. For all variables other than jobs at the local level, the latest year of historic data is 2014. For local jobs data this is 2013. The most recent forecasts (June 2015) run to 2035.

Job growth estimates are arrived at through a dual approach:

- A top-down application of national and regional trends by sector, reflecting the sector profile locally; and

- A bottom-up approach informed by the available labour force incorporating economic activity rates and commuting ratios.

Recognising this methodological approach to the Experian model, Experian have provided bespoke modelling outputs to inform the TGSE SHMA.

In estimating jobs growth, Experian apply an iterative process in balancing top-down sector based performance (jobs demand) and bottom-up labour supply. Where there is an insufficient growth in the local labour force to fill this jobs demand – as a result of population change, economic activity rates, employment rates and reasonable change in in-commuting – the number of projected workforce jobs are constrained. In order to assess the impact of this constraint, Experian ran a version of their model which did not apply any such population constraint to the scale of job demand forecast.

In the case of the TGSE forecasts, this modelling revealed the difference between jobs demand and workforce jobs is greatest in 2015 where unfilled jobs reach 110 positions (i.e. the jobs forecasts are reduced by 110 as a result). For the remainder of the period, unfilled positions hover at around 40-50 jobs, indicating only a limited constraint on jobs growth by availability of labour supply. Experian's workforce jobs forecasts are therefore largely reflective of the full economic growth potential of the area.

Figure 3.1   Jobs Demand Versus Workforce Jobs, 2013-2031 (000s)
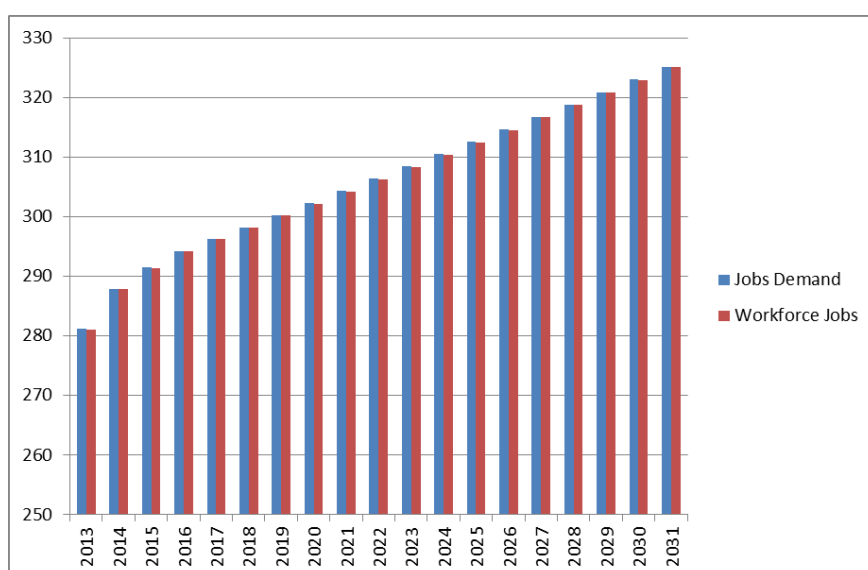
Source: Experian 2015

In addition to assessing the extent to which the jobs demand estimate was potentially constrained by input population estimates, a further scenario was run to assess the impact on the model of assuming a higher level of population growth.

As presented in Appendix 2 of the SHMA, Edge Analytics has developed a series of variant demographic projections. One of these scenarios assesses the extent to which population growth will vary based on the application of different migration assumptions relating to London (SNPP 2012-LDN, or SNPP London). For each of the authorities, this scenario suggested a higher level of population growth than implied through the 2012 SNPP which Experian consistently use in their baseline modelling.

Edge Analytics supplied the demographic data from this SNPP 2012-LDN scenario to Experian. Experian have subsequently run their economic forecast models with this higher population input. The results of this exercise are summarised below.

In terms of the overall population profile under this scenario, the population aged between 16 and 64 years is greater in each of the 5 local authorities than under the Experian baseline projections. The population aged 16+ is younger in each of the authorities. The population aged 65 and over is less in all authorities, bar Basildon where it is projected to be greater.

The difference in the size of the labour force between the baseline and scenario is made up of both the change in population and the change in activity rates (amongst both the existing population and the new population). The majority of extra residents enter the labour market with the remainder being economically inactive. This leads the model to adjust economic activity rates, based on the reaction between supply and demand of labour[193].

The scenario projects only marginal increases in workforce jobs for each local authority. These increases are due to additional population requiring additional services such as retail, education and health and social care. The largest difference with the baseline projections is in Basildon, where an additional 170 jobs are projected as a result of services required by an additional 1,800 residents.

Table 3.1   Workforce Jobs in 2035 Under Baseline and Alternative Scenario (000s)

	Baseline	Scenario	Difference
Basildon	105.89	106.06	0.17
Castle Point	26.51	26.52	0.01
Rochford	30.27	30.29	0.02
Southend	87.59	87.70	0.10
Thurrock	83.80	83.89	0.09

Source: Experian, 2015

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[193] There is an initial assumption made on participation rates across age bands over the forecast. From then on, Experian do not make direct assumptions about economic activity for each age band, rather the model responds to demand and supply of labour. 'Residents change their decision about whether to participate in the labour market in each period as they react to the tightening or loosening of the labour market. Therefore, differences in participation rates between the scenario and baseline are not due to different assumptions made on participation rates but because of how different population projections create different levels of demand and supply in the labour market'.

Commuting is assumed to change only marginally. The largest change is projected for Basildon which is forecast an additional 80 people commuting in to the borough for employment in 2035 in the alternative scenario compared to the baseline.

Unemployment and the unemployment rate is projected to rise in each location due to a greater increase in population than workforce jobs.

It is apparent from the additional modelling prepared by Experian that the forecasts used to consider the need for housing in this SHMA are not constrained to any significant degree by population inputs to the model. It is equally apparent that Experian's model enables variation in labour-force behaviour assumptions to respond to differing levels of population growth, with these not representing 'fixed' modelling assumptions.

EEFM

EEFM is produced by Oxford Economics and was developed in 2007 to *'project economic, demographic and housing trends in a consistent fashion'* for local authorities in the East of England. It has since been rolled out to include coverage of additional local authorities outside of the former East of England region[194].

The model relies heavily on published data as well as past modelling experience and local knowledge. As well as a baseline scenario, various additional scenarios are published. The 2014 EEFM is currently only available as a baseline scenario. Previous iterations have included 'lost decade & beyond', 'high migration' and 'variant occupancy' scenarios.

The latest year of historical data for population is 2013 and for employment is 2012. The forecasts run to 2031.

The forecasts are based on past observed trends and therefore reflect previous infrastructure and policy environments. Equally, in looking forward they are 'policy-off' and are therefore unconstrained by any future planning constraints which may prevent levels of demand being satisfied.

The concentration of each sector locally compared to regionally (its Location Quotient) and how this has changed over time is used as the basis to forecast how the sector may perform in the future. A number of labour market and demographic factors are used to apply to the sector forecast and estimate jobs and employment.

In effect the general approach taken by Experian and EEFM is broadly the same: combining top-down sector forecasts and local labour market data and assumptions. The detail in application varies with alternative labour-force behaviour adjustments an important consideration.

Forecast Job Growth (Workforce Jobs)

Workforce jobs are the jobs available in a local area, including both employee jobs and self-employed jobs. The SHMA considers housing need over the period from 2014 to 2037, and therefore it is important to understand forecast change in employment over this period. The modelling prepared by Edge Analytics is based to 2014, given that this is the latest known

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[194] Note: the 2014 Technical Report to accompany the 2014 forecast published in January 2015 is not yet available. The interpretation of the EEFM approach is based on the 2013 Technical Report.

population data available from ONS, and this therefore represents the starting point for the labour force demand approach to estimating housing need.

This requires an extrapolation of forecasts as follows:

• As Experian forecasts run only to 2035, the 2034/35 absolute level of job creation is assumed to be sustained to the end of the projection period in 2037; and

• EEFM forecasts run to 2031, and therefore the 2030/31 job creation is assumed to be sustained throughout the remainder of the projection period to 2037.

Forecast change in workforce jobs in TGSE over the period from 2014 to 2037 is presented in the following chart. It is important to note that the forecasting houses' respective analysis of historic data results in different starting points for the number of jobs in TGSE in 2014.

Figure 3.2   TGSE Workforce Jobs, 2014 – 2037
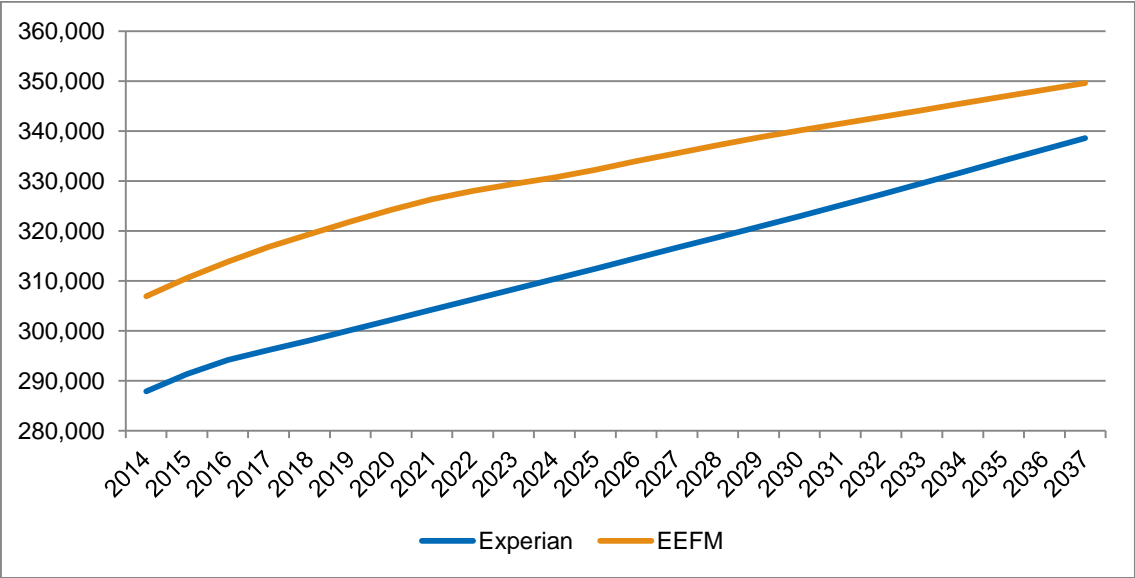
Source: Experian 2015; Oxford Economics 2014

Table 3.2 compares the two forecasts by district, presenting overall change, proportionate overall change and compound average annual change per annum. It is apparent that Experian's forecast suggests a higher overall level of proportionate growth in all districts in TGSE, except for Thurrock where EEFM forecast greater change.

Table 3.2   Change in Workforce Jobs by District, 2014-2037 (000s)

	District	2014	2037	Total Change	% Change	% Change per annum
Experian	Basildon	93,653	107,074	13,420	14%	0.6%
	Castle Point	24,172	26,746	2,575	11%	0.4%
	Rochford	27,426	30,543	3,117	11%	0.5%
	Southend-on-Sea	74,799	88,843	14,044	19%	0.8%
	Thurrock	67,877	85,383	17,506	26%	1.0%
	TGSE	**287,926**	**338,589**	**50,662**	**18%**	**0.7%**
EEFM	Basildon	96,727	106,900	10,173	11%	0.4%
	Castle Point	29,415	29,608	193	1%	0.0%
	Rochford	29,371	31,284	1,913	7%	0.3%
	Southend-on-Sea	80,565	87,863	7,298	9%	0.4%
	Thurrock	70,830	93,965	23,135	33%	1.2%
	TGSE	**306,909**	**349,620**	**42,711**	**14%**	**0.6%**

Source: EEFM 2014; Experian 2015

Double jobbing

The modelling and analysis presented above relates to 'workforce jobs'. This is a count of the total number of jobs in each authority, with no translation into full-time equivalent (FTE) or consideration of the extent to which people have more than one job. Often referred to as 'double jobbing', the latter refers to instances where individuals hold more than one job.

Within their forecasts, both Experian and EEFM provide estimates of workplace-based employment, which represents a people-based figure of the number of people working in an area. This inherently applies an assumption regarding the number of people taking more than one job, and both forecasts assume that an increased proportion of jobs will be taken by people with more than one job.

In understanding change over the forecast period, it is therefore important to understand forecast change in both total jobs and total workplace-based employment. This is presented in the following table, showing that both forecasting models inherently assume that change in workforce jobs can be supported through a smaller absolute level of growth in workforce.

Table 3.3   Change in Workforce Jobs and Workplace-based Employment 2014-2037

		Change in Workforce Jobs 2014-2037	Change in Workplace-based Employment 2014-2037
Experian	Basildon	13,420	10,874
	Castle Point	2,575	1,601
	Rochford	3,117	2,141
	Southend-on-Sea	14,044	12,962
	Thurrock	17,506	15,558
	TGSE	**50,662**	**43,136**
EEFM	Basildon	10,173	9,466
	Castle Point	193	214
	Rochford	1,913	1,885
	Southend-on-Sea	7,298	7,224
	Thurrock	23,135	22,089
	TGSE	**42,711**	**40,878**

Source: EEFM 2014; Experian 2015

The forecasts considered in this Appendix present outputs related to both workforce / total jobs as well as employed people counts. The latter essentially removes the double jobbing element, with the constraint in the model being employed people irrespective of whether they have more than one job[195].

Labour Market Participation

Modelling the relationship between population, the working age population, and the labour force involves the application of assumptions regarding:

- The extent to which people are active in the employment market (economic activity and unemployment); and

- Commuting relationships with different areas.

Each of the economic forecasting houses applies their own assumptions to these elements in deriving the outputs of their modelling. Approaches differ, however, and it is evident that

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[195] The EEFM technical report (2013) defines total workplace employment (jobs) as: *'the total number of employee jobs and self-employed jobs in an area. These can be taken by residents or commuters from outside. Note that this includes all full-and part-time jobs, so if someone has two part-time jobs, they are counted twice.'* The technical report defines total workplace employment (people) as: *'the total number of people in employment in an area, including both residents and commuters. A person who has more than one job is only counted once, so total workplace employed people is smaller than total workplace employment'.* The technical report identifies the rationale for deriving this figure: *Because a model aiming to simulate housing demand needs to focus on people, we have to convert the total number of jobs in an area into numbers of employed people'.* The note also confirms that: *'Individuals are assumed to hold only one full-time job each. Part-time jobs are assumed to account for 0.75 of a full-time job, and self-employed people are assume to account for 0.93 of a self-employed job.'*

different assumptions can have significant implications. The following section compares the input assumptions of the two forecasting models. In the case of Experian, this uses additional information provided for the context of this SHMA, while published data is summarised for the EEFM.

Input Assumptions

Population

As identified earlier in this appendix, the economic forecasting models developed by Oxford Economics and Experian contain assumptions on how the population will change over the forecasting period. Experian align with the official 2012-based sub-national population projections (SNPP) published by ONS, whereas the Oxford Economics model generates its own forecast of population growth at a national level. Whilst birth and death rates are taken from the ONS projections, migration is driven by Oxford Economics' own assumptions around the impact of the economy. Local levels of migration therefore vary, on the basis of the comparative need for labour.

The following table summarises the level of population growth implied over the forecast period to 2037 within each forecast, alongside the growth projected under the official 2012-based SNPP. This highlights the scale of difference between the EEFM and Experian models with regards to population, particularly in Castle Point and Southend-on-Sea. There is a much closer alignment between the Experian forecast and the SNPP 2012 projection noting that the Experian model uses this projection as an input to its forecasting as noted earlier in the section.

Table 3.12   Forecast Population Growth 2014 – 2037

	EEFM	Experian	SNPP 2012
Basildon	30,133	26,770	26,766
Castle Point	1,530	10,274	10,327
Rochford	10,139	10,533	10,560
Southend-on-Sea	18,925	30,520	30,394
Thurrock	36,735	37,462	37,511
TGSE	**97,461**	**115,559**	**115,558**

Source: Oxford Economics, Experian, ONS

Economic Activity Rates

It is well documented that the population of the UK is ageing. This is being experienced differently across different parts of the country, with Scotland anticipated to be the first part of the UK to see a decline in the working age population from 2022 followed by the North East[196].

As the population ages, this will have an impact on the size and make-up of the labour force. Changes to State Pension Ages will potentially have an impact on the proportion of older

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[196] Experian Economics' Spring 2015 Seminar, 14th May 2015

residents in the workforce, those aged over 65, continuing to be classified as economically active. The Office for Budget Responsibility[197] (OBR) expects that:

'Employment rates for men aged 60 to 64 years will continue rising over time, although slightly more gradually than in the recent past, and ending the period below the level seen in the 1970s. Employment rates for women of the same age are projected to pick up more significantly over the next five years, as the SPA [State Pension Age] is equalised. And SPA changes are also projected to raise the shares of both men and women working into their late sixties. We do not assume that this pace of change continues into later life'.

Figure 3.3   Employment Rates for 60 to 74 Year Olds
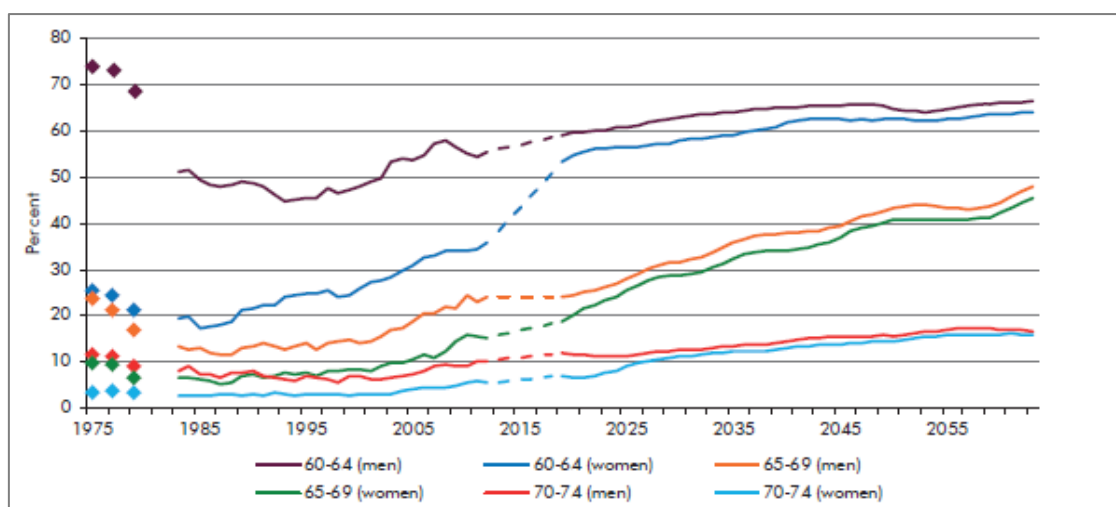
Source: Fiscal Sustainability Report, Office for Budget Responsibility, July 2014

Note: Prior to 1983, the Labour Force Survey does not contain an annual series for these indicators, so only available years are shown. OBR's medium-term forecast is produced top-down, not bottom-up, so the dotted lines for that period are a simple linear interpolation.

The rate of change in the employment rate forecast for older people by OBR is presented in the following table.

Table 3.13   OBR Age-Specific Employment Rate Forecasts 2011 – 2031

	Male	Female
60 – 64	17.0%	71.0%
65 – 69	39.0%	93.0%
70 – 74	20.0%	83.0%

Source: OBR, 2014

Despite increases in employment rates amongst residents in the 60-74 year bracket, the following chart illustrates that the scale of population growth in these age groups will mean that

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[197] Fiscal Sustainability Report, Office for Budget Responsibility, July 2014

overall employment rates for the 16-74 age-range are projected to decline. A greater number of residents will be needed to fill the same number of jobs.

Figure 3.4   Employment Rate Projections, 16+ Population
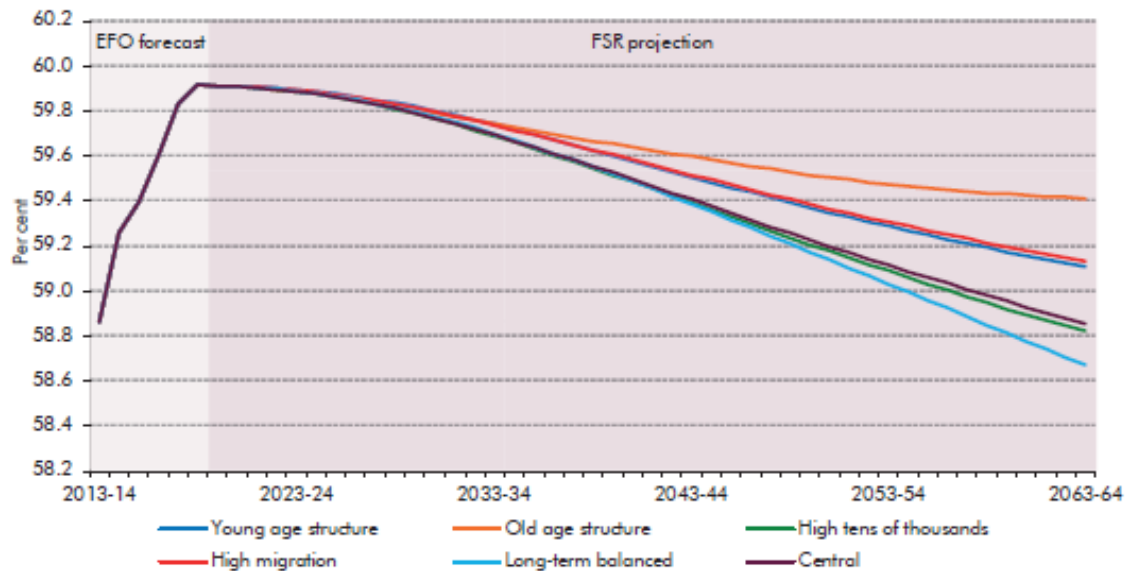
Source: Fiscal Sustainability Report, Office for Budget Responsibility, July 2014

Forecasting companies make various assumptions about the economic activity of residents aged over 65. For example, Experian's economic activity rates for the over 65 population are informed by:

- **Pension reform** – raising the state pension age will mean that more people stay working for longer. In particular there will be a notable jump in the number of economically active women aged 60-64.

- **Retirement reform** – the eradication of statutory retirement age will encourage individuals to remain in employment for longer.

- **Behavioural change** – there will be more women working in older age groups as they will be in cohorts who have always worked.

Importantly, Experian's '*overall participation rate is based on a ratio of the total labour force to the entire adult population (not only the working age population)*'.

The following chart illustrates the effect of assumptions made by Experian with regards to the economic activity of residents over 65 years on the overall participation rate. The baseline shows their projected participation rate; the flat line shows the effect of holding all participation rates of those over 65 years flat; and the pension only line '*holds all rates flat but allows for increases in participation rates only as a result of changing SPA*'. Experian's assumptions around participation rates of those aged over 65 clearly have a large impact on overall participation rates, with rates being around 4% higher by the end of the projection period with these assumptions than without them.

Figure 3.5   UK Participation Rates for those aged 16+
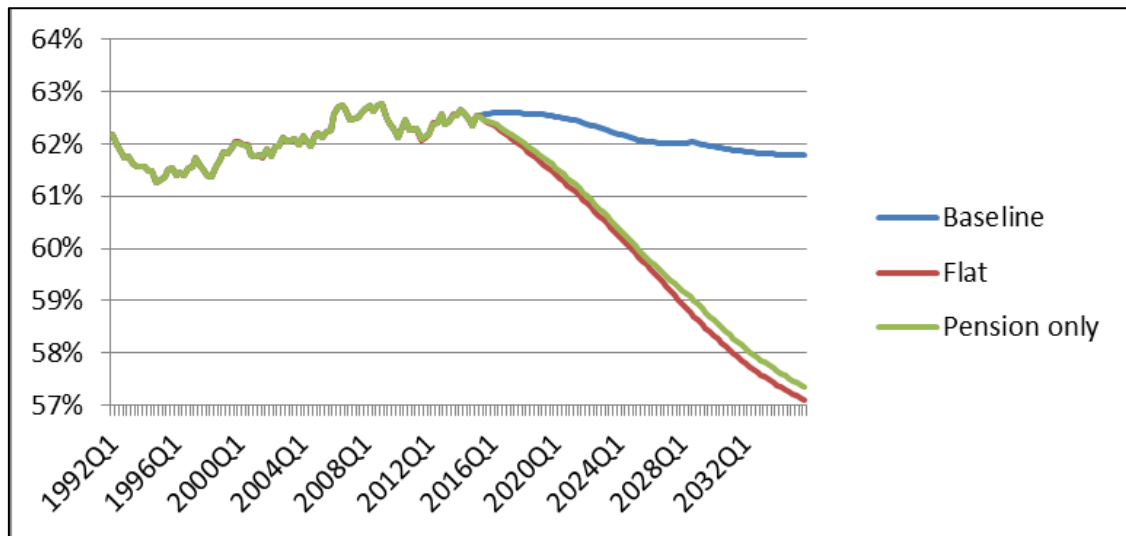
Source: Experian, 2015

As the economic activity expectations of this group increases so does the size of the group due to population ageing, leading to a potentially significant increase in labour force under the baseline projection. This is illustrated in the following charts based on data directly supplied by Experian.

Basildon, Southend, Rochford and Thurrock are forecast notable proportionate change in their economic activity rates. In the case of Rochford, this leads to a significant proportion of residents aged over 65 years being projected to be economically active (37.8% in 2031). This would suggest that fewer homes are required per job to provide the necessary level of labour. The reliance on labour force growth amongst older age groups must be treated with caution in estimates of housing need, as referenced subsequently in relation to Planning Advisory Service (PAS) guidance.

Figure 3.6   Basildon – Economic Activity and Labour Force, Over 65s, 2004-2031 (Experian)
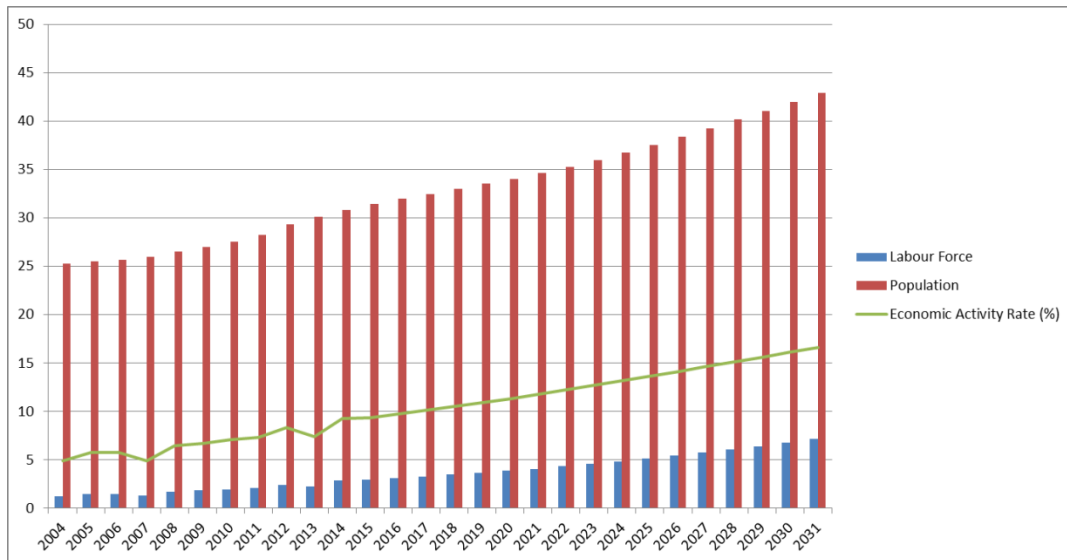
Source: Experian 2015

Figure 3.7   Castle Point – Economic Activity and Labour Force, Over 65s, 2004-2031 (Experian)
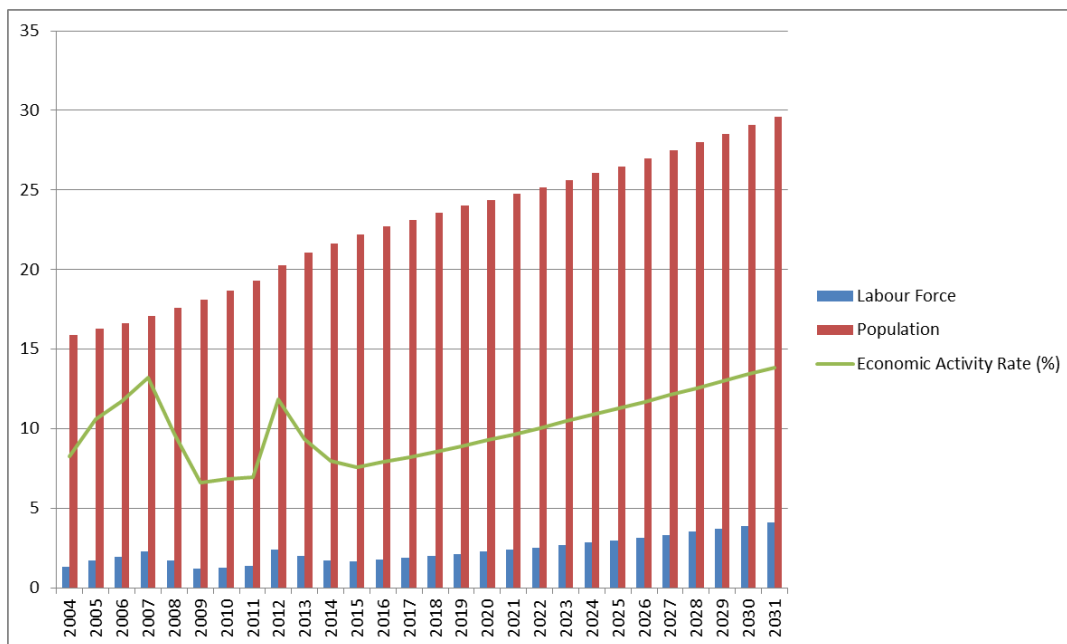
Source: Experian 2015

Figure 3.8   Rochford – Economic Activity and Labour Force, Over 65s, 2004-2031 (Experian)
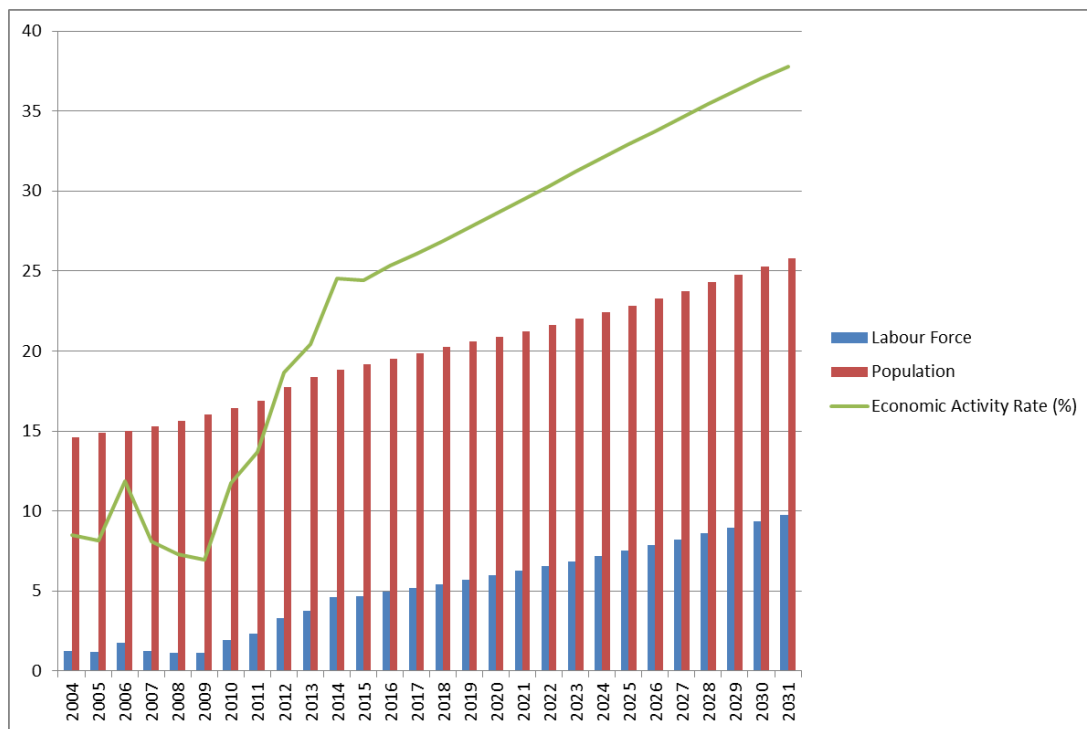
Source: Experian 2015

Figure 3.9   Southend-on-Sea – Economic Activity and Labour Force, Over 65s, 2004-2031 (Experian)
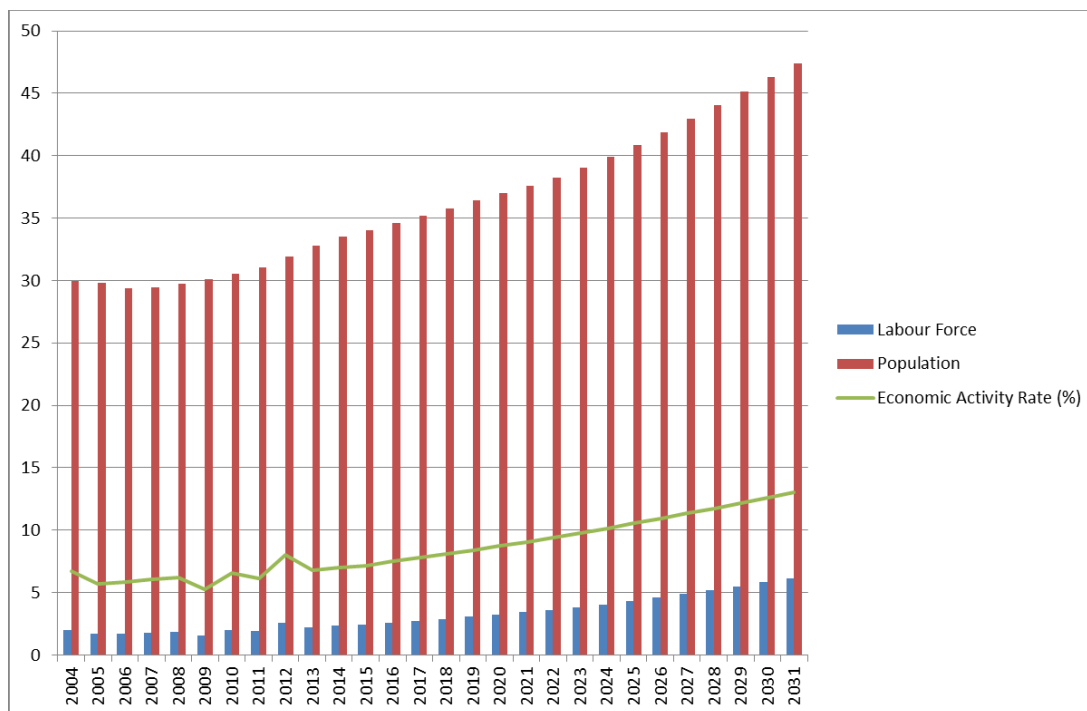
Source: Experian 2015

Figure 3.10   Thurrock – Economic Activity and Labour Force, Over 65s, 2004-2031 (Experian)
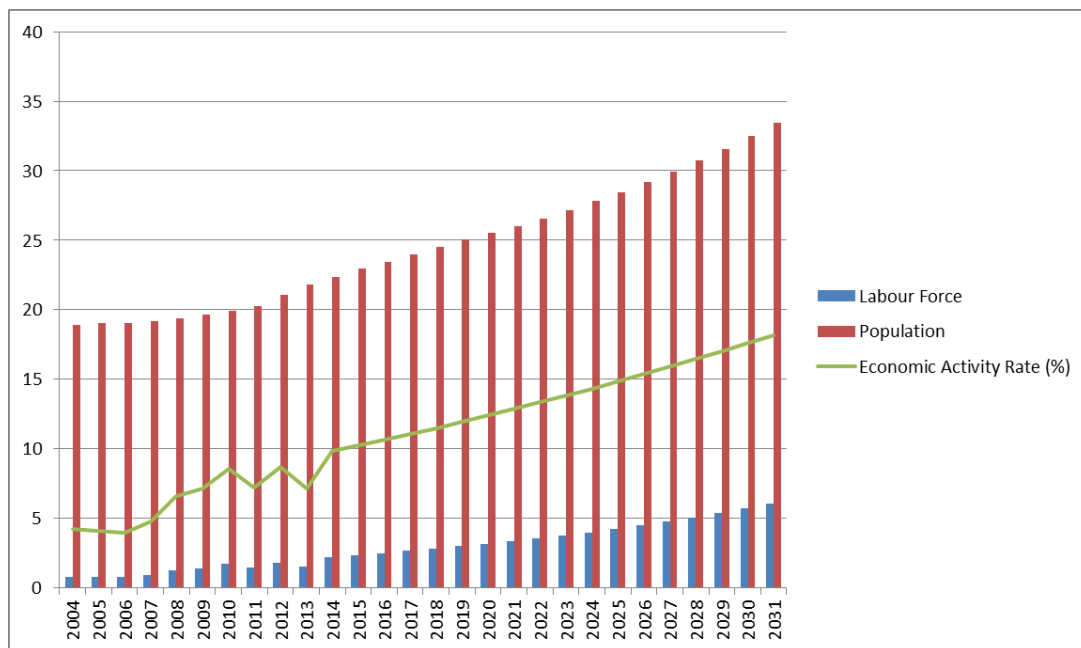
Source: Experian 2015

In the context of the above, it is important to recognise that residents aged over 65 are more likely to work part time hours and therefore this is unlikely to be directly translated into a like for like increase in jobs filled.

EEFM does not produce data for economic activity and the 2013 Technical Report does not comment on this variable. Demographic variables include the working age population (16-64 years) and the older population (65 year plus). Total workplace employment (i.e. people in jobs) is based on Census and BRES data while residence employment (i.e. local people in jobs) is based on the Census commuting matrix.

Though EEFM output does not directly provide economic activity rates, these can, to a degree, be inferred from other indicators. For example, the chart below illustrates that the employment rate of TGSE is forecast to increase by around 4.5 percentage points from 2013 to 2031.

Figure 3.11   Residence Employment Rate (%)
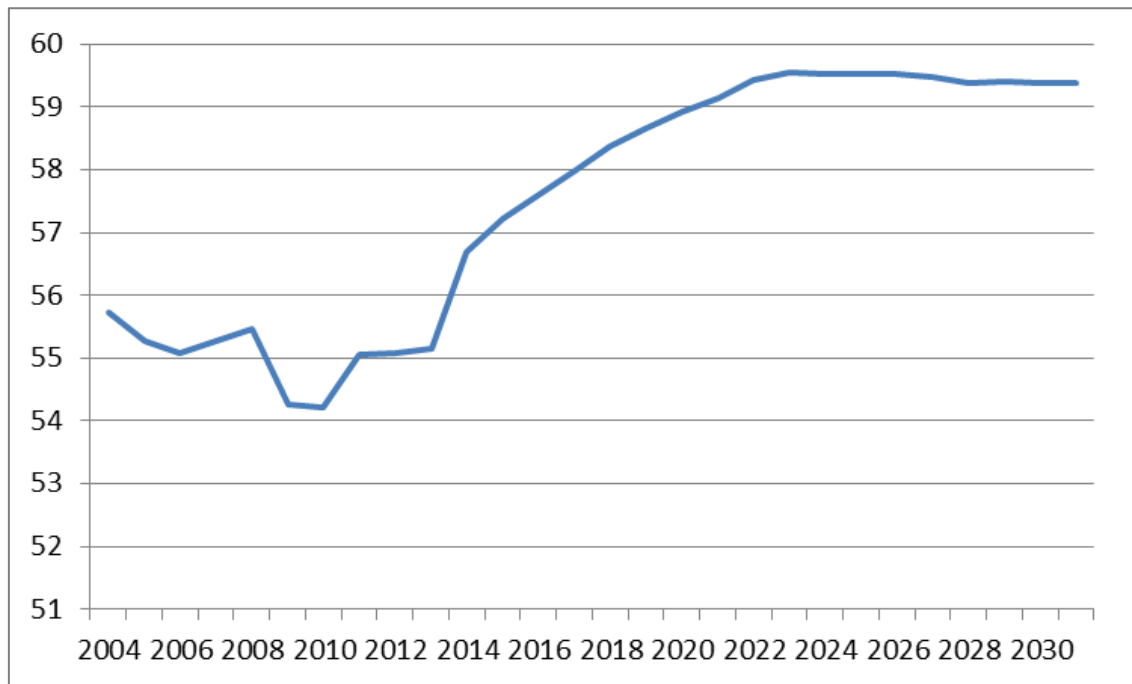
Source: EEFM 2014

While EEFM data does not allow us to see the exact assumptions made with regards to economic activity rates by age group, Edge Analytics has extracted out the rates using the data available. This is illustrated in the following table. The overall economic activity rates show that Castle Point is forecast the largest percentage point increase in economic activity from 2011-2031 (6.27 percentage points). This compares to a much lower rate of increase in Rochford (2.57). These changes allude to some assumptions made within EEFM's modelling around increases in economic activity among the older age groups within the 16-74 age bracket.

Table 3.14   Economic Activity Rates, 16-74 years of age

Area	Economic Activity Rate (16–74)			Change (2011–2031) (pp)
	2011	2014	2031	
Basildon	69.4%	72.8%	73.4%	4.03
Castle Point	66.5%	66.7%	72.8%	6.27
Rochford	69.1%	69.4%	71.7%	2.57
Southend-on-Sea	69.0%	69.6%	72.2%	3.12
Thurrock	71.6%	71.9%	75.3%	3.71

Source: EEFM, 2014, Edge Analytics, April 2015

A significant increase in economic activity rates of those aged over 65 must be treated with caution. Planning Advisory Service (PAS) guidance[198] highlights that:

'A number of housing assessments have been criticised by Inspectors for their assumptions about economic activity rates. The issue relates especially in relation to older people, where some studies expect the increases in state pension age to produce much increased activity rates over the next 15-20 years. This reduces the population growth, and hence household growth, that is required to support a given number of new jobs. But unrealistic figures put the emerging plan at risk. Not only could the housing assessment be unsound in itself, but also could be inconsistent with proposals for employment land, which are also based on expected future employment'.

This is also highlighted by the Inspectors of the Cheshire East Local Plan and Stratford-on-Avon Local Plan:

'CEC's assumptions about future employment envisage increased economic activity rates for older people, related to the deferral of state pension age. Although there is some evidence that employment rates in this age group may increase, the assumptions used in the estimates are somewhat over-optimistic, again depressing the need for new houses for new, and younger, employees'[199].

It is also stated that:

'Given this significant contraction in what I shall call the conventional economically active population, those aged 16-64, it is difficult to understand the justification for the projected increase in the working population, or labour force supply. It appears to rely on an ageing workforce and whilst I recognise the increase in state pension age the employment yield from these age groups might be low due to lifestyle choice and other factors[200]'.

Unemployment

Unemployment rates also affect the level of homes required to meet jobs growth. Both Experian and EEFM project unemployment rates to fall across all authorities in TGSE from 2013 to 2031.

As with other indicators, Experian and EEFM apply different methods of calculating unemployment and so the absolute figures in the table below cannot be directly compared. The percent change should be used for any comparison. Experian uses the International Labour Organisation (ILO) unemployment rate which captures any person not in employment who would like to work. EEFM uses claimant count unemployment rate which is lower than ILO unemployment, capturing only those who are registered for Job Seekers Allowance.

Under Experian projections, the unemployment rate in 2031 is forecast to be slightly higher than the pre-recession average in each authority.

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[198] Objectively Assessed Need and Housing Targets: Technical Advice Note, Planning Advice Service, June 2014
[199] Cheshire East Council, Examination of the Cheshire East Local Plan Strategy, Inspector's Interim Views on the Legal Compliance and Soundness of the Submitted Local Plan Strategy, Stephen J Pratt, November 2014
[200] Inspectors' Interim Conclusions on the Stratford-on-Avon Core Strategy, Pete Drew, March 2015

Table 3.7   Unemployment Rate, 2013-2031

Authority (Pre-recession average 2004-07)	Experian				EEFM			
	2013	2031	PP Change	% Change	2013	2031	PP Change	% Change
Basildon (4.5%)	8.2%	4.9%	-3.3	-40%	3.9%	2.4%	-1.48	-39%
Castle Point (3.5%)	6.8%	4.6%	-2.25	-33%	2.6%	1.9%	-0.71	-27%
Rochford (3.4%)	4.9%	3.3%	-1.60	-33%	2.0%	1.4%	-0.56	-28%
Southend-on-Sea (5.5%)	7.6%	6.5%	-1.04	-14%	4.1%	2.9%	-1.19	-29%
Thurrock (4.4%)	7.3%	5.6%	-1.63	-22%	3.8%	2.3%	-1.56	-41%

Source: Experian 2015; EEFM 2014

Commuting

Commuting assumptions are important and can have a significant effect on housing targets. However, they must be realistic to ensure housing targets will support the economic growth potential of an area. These assumptions are also important in Duty to Co-operate terms.

The PPG states that:

'Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems.'

Likewise, the PAS guidance notes that:

'Another risky approach is to plan for recalling commuters, so the ratio of workplace jobs to resident workers – and hence to population and number of dwellings – is assumed to rise over the plan period. Like increasing activity rates, this assumption means that more jobs can be accommodated for a given number of dwellings, or a given number of jobs needs fewer dwellings. But for the shift in commuting ratio to be believable there would have to be supporting evidence, to show what economic factors or policy action will bring it about. In general such evidence is not provided and the assumption of reduced commuting relies on pure aspiration. In any case strategies of recalling commuters should not be adopted unilaterally…This needs joint working across labour market areas'.

In forecasting, commuting is an important variable, as summarised below:

- To respond to an increase in jobs, Experian make assumptions about the degree to which commuting patterns can be expected to adapt. If an area competes with the labour market of another, more economically competitive, area then reducing net out-commuting may be unrealistic. For example, TGSE has a strong commuting connection with London. If the number of jobs available in TGSE increases it will not automatically mean that commuting trends will alter, particularly if the type and location of jobs are not synonymous with the expectations and behaviours of commuters. Edge Analytics has identified that the following commuting rates are used within the Experian model with these suggesting that TGSE proportionally exports a greater proportion of labour-force:

  - Basildon – 0.94 in 2014 rising to 0.99 in 2035 (+0.05 change)

  - Castle Point – 1.69 in 2014 rising to 1.81 in 2035 (+0.12)

  - Rochford – 1.45 in 2014 rising to 1.55 in 2035 (+0.10)

  - Southend-on-Sea – 0.90 in 2014 rising to 0.95 in 2035 (+0.05)

  - Thurrock – 1.14 in 2014 rising to 1.19 in 2035 (+0.05)

- In EEFM modelling, net-commuting is *'the residual between an area's residence-based and workplace-based estimates of numbers of people in employment'* and can occasionally lead to manual adjustments if they are not in line with past trends. Residence employment is based on the Census commuting matrix and is assumed to be constant. However, adjustments are made where required to match projected jobs growth. For example in EEFM 2014, Edge Analytics has identified that the following commuting ratios are used[201]:

  - Basildon – 0.99 in 2014 rising to 1.00 in 2031 (+0.01 change)

  - Castle Point – 1.41 in 2014 rising to 1.49 in 2031 (+0.08)

  - Rochford – 1.43 in 2014 rising to 1.46 in 2031 (+0.03)

  - Southend-on-Sea – 1.07 in 2014 rising to 1.08 in 2031 (+0.01)

  - Thurrock – 1.22 in 2014 falling to 1.16 in 2031 (-0.06)

Note: A commuting ratio of more than one suggests that the resident population in employment is larger than the number of jobs available (net out-commuting). A decline in the figure implies claw back of employees and a reduction in net out-commuting.

POPGROUP Employment-led Modelling Outputs
In order to consider further the implications of the application of variant modelling input labour force assumptions on the implied population and household growth projections, Edge Analytics

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[201] Source: EEFM, 2014, cited in Greater Essex Demographic Forecasts 2013-2037, Phase 7 Main Report, Edge Analytics, April 2015

has taken the economic forecast modelling inputs and integrated them within the POPGROUP model alongside the forecast job growth outputs[202].

Edge Analytics has run a number of variant versions of these employment-led projections. Initially the modelling has sought to assess the extent to which the migration of people of working age is impacted by forecast job growth through the application of a series of labour force assumptions within the POPGROUP model.

Enabling a comparison with the Economic Forecasting houses labour-force adjustments

In order to compare and contrast the impact of the labour-force adjustments applied to the demographic projections in the POPGROUP model with those used in the two forecasting house models Edge Analytics has also sought to integrate the forecasting houses labour-force assumptions in the POPGROUP model. Whilst the outputs of this modelling do not result in a direct alignment to the input / output population growth recorded in each of the forecasting houses models there is a comparatively strong alignment which indicates that at a broad level it is possible to appraise the impact of the differing labour-force assumptions in the forecast models and POPGROUP.

It is important to note in the context of the analysis preceding the presentation of this modelling that there is variance in these assumptions between the forecasting models. There are therefore a number of areas where the scale of adjustment is noted to be significant, including, for example, economic activity rates of older persons in the labour force. Detailed information regarding the assumptions used in the modelling is included in Appendix 4. However, the analysis below presents a summary of the comparable POPGROUP modelled assumptions used for the scenario forecasts.

Variant Labour force Assumptions used within the POPGROUP modelling

The following table compares the different approaches used to apply adjustments to economic activity rates by Edge Analytics within the POPGROUP model and the two forecasting models.

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[202] 'Workforce jobs' rather than 'jobs demand' has been modelled at this stage

Table 3.8   Economic Activity Rate Assumptions used in the POPGROUP modelling

	Economic Activity Rates Assumptions
Edge Analytics standard assumption (no suffix label on scenarios presented)	2011 Census economic activity rates for people aged 16 – 74 by 5-year age group and sex are used. Rates for males and females aged 60 – 69 are modified from 2011 to 2020 to account for changes to State Pension Age
OBR ('OBRadj')	Using the 2014 Fiscal Sustainability Report produced by the OBR, an alternative set of economic activity rates has been derived where the 2011 Census economic activity rates for the older age groups have been modified from 2011 to 2031 in line with the increases in the employment rate, as forecast by OBR
Experian ('EXP')	Economic activity rates are provided from the Experian model for people aged 16 – 64 and 65+, changing over the forecast period as forecast by Experian
EEFM ('EEFM')	Economic activity rates are provided for people aged 16 – 74, changing over the forecast period as suggested by the EEFM

Source: Edge Analytics, 2015

The following charts consider the input assumptions used in the modelling in more detail.

With regards to economic activity rates, the standard set of assumptions in the Edge Analytics model suggest that despite applying increases to economic activity rates in older ages, the aggregate level of economic activity in the Edge Analytics assumptions decreases over the forecast period. This is shown in the following chart which is based upon the outputs of the POPGROUP model calculated using the 2012 SNPP scenario for each authority.

Figure 3.12   Edge Analytics POPGROUP Aggregate Economic Activity Rates
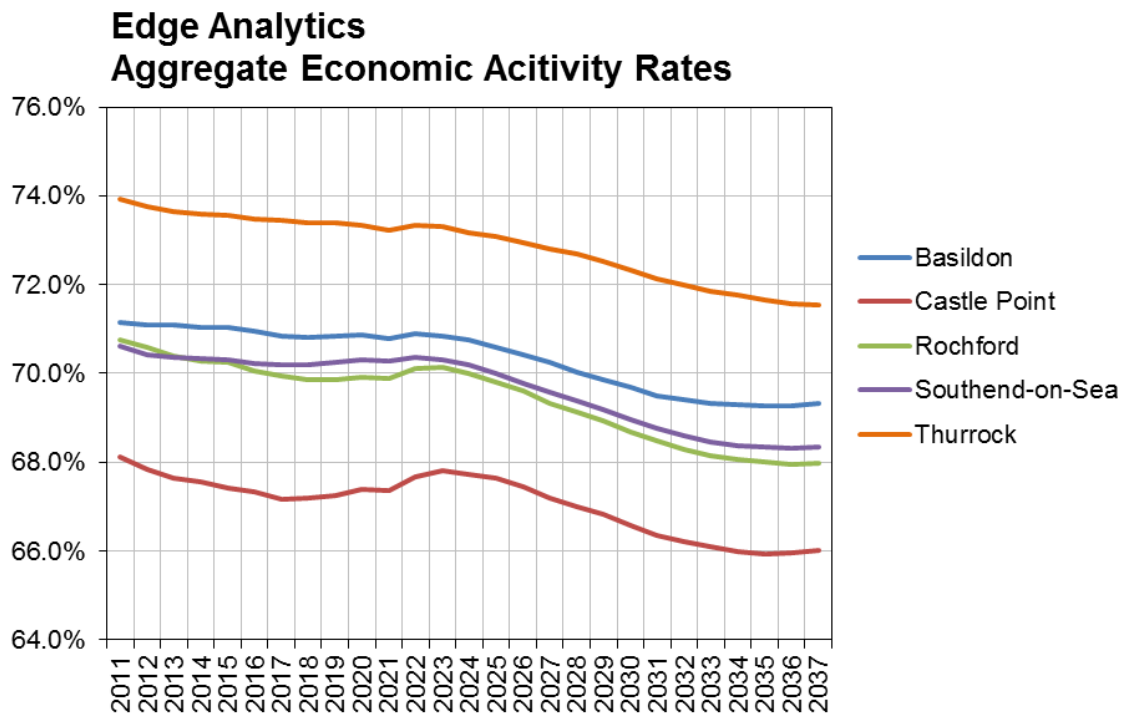
Source: Edge Analytics, 2015

It is difficult to directly compare this against the outputs of the forecasting models in this output. However, charts presented in the earlier section present the forecasting houses' assumption on economic activity / employment rates, noting that these can vary depending on the population group (age) used. In headline terms the Edge Analytics modelling assumptions which show a general decline in activity rates contrasts with the upward trend shown in both the Experian (Figures 3.6 – 3.10) and the EEFM model (Table 3.14).

A comparable analysis of unemployment rates is shown in Figure 3.13. It should be noted that EEFM uses the JSA definition of unemployment and therefore is not directly comparable to the data used by Edge Analytics and Experian. Instead the general trends should be assessed.

Figure 3.13 Comparable Unemployment Rate Assumptions used in the POPGROUP modelling

Basildon Unemployment Rates

Castle Point Unemployment Rates

Rochford Unemployment Rates

Southend-on-Sea Unemployment Rates

Thurrock Unemployment Rates
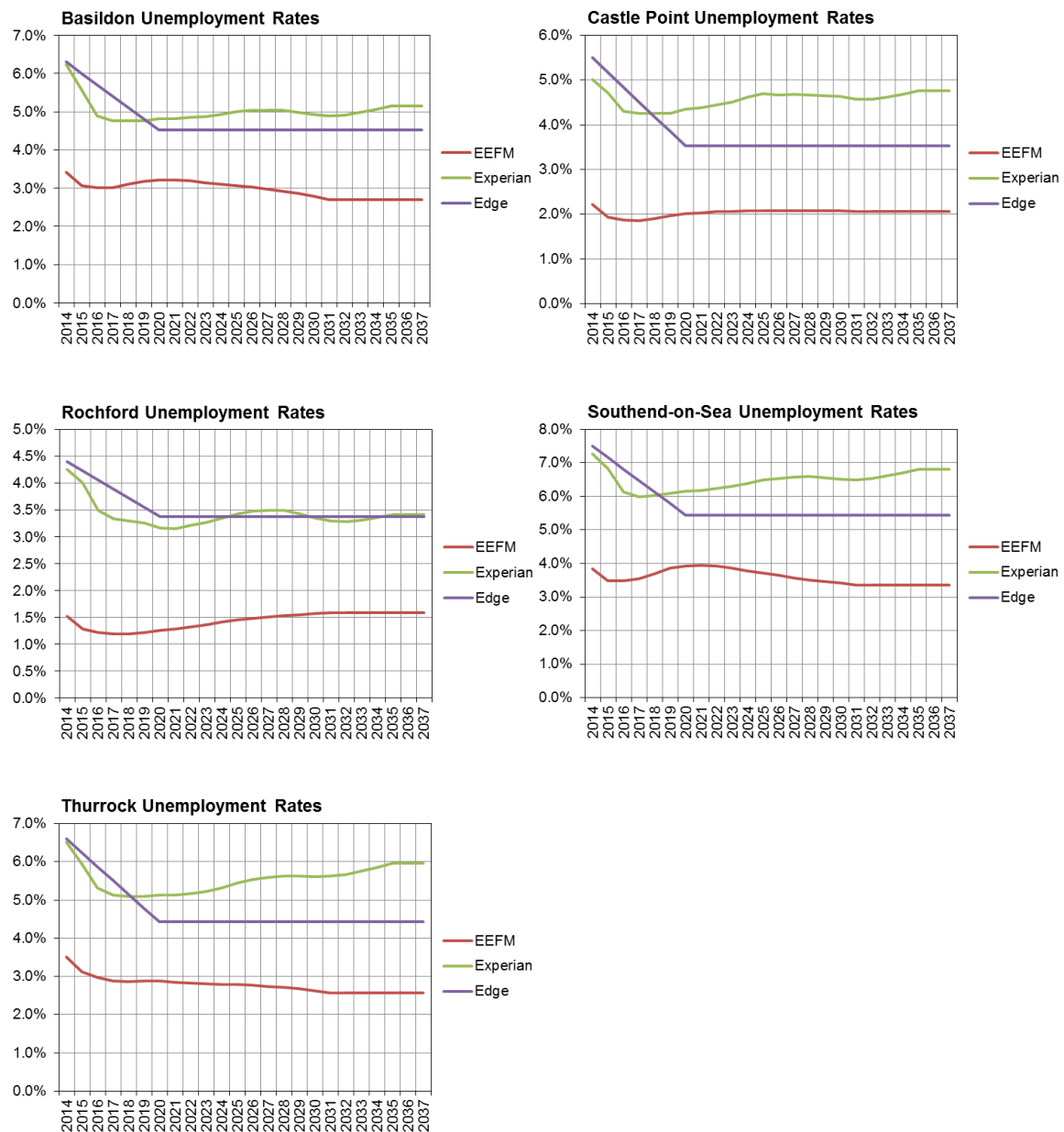
Source: Edge Analytics, 2015

The key consideration in the analysis of the unemployment rate assumptions is the change in the unemployment rates over the forecast period. The Experian model in particular projects a notable reduction in unemployment at the beginning of the forecast period, particularly the first two years. The model then assumes a level of variation going forward with a slight upward trend suggested in a number of authorities. By contrast, and noting as set out above that the EEFM uses a different dataset to represent unemployment, the EEFM whilst also suggesting an improvement in rates, albeit more modest, initially then suggests differing trends by authority with some forecast to increase and some decrease.

Edge Analytics assumes unemployment rates reducing at a more moderate rate until 2020, albeit to a slightly lower level in a number of cases, keeping them fixed thereafter. It is important to recognise that the adjustments to unemployment do need to be considered in the context of the rates of change assumed in economic activity considered already in this section.

Figure 3.14 provides a comparison of commuting rate assumptions used in the modelled scenarios.

Figure 3.14   Comparable Commuting Assumptions used in the POPGROUP modelling
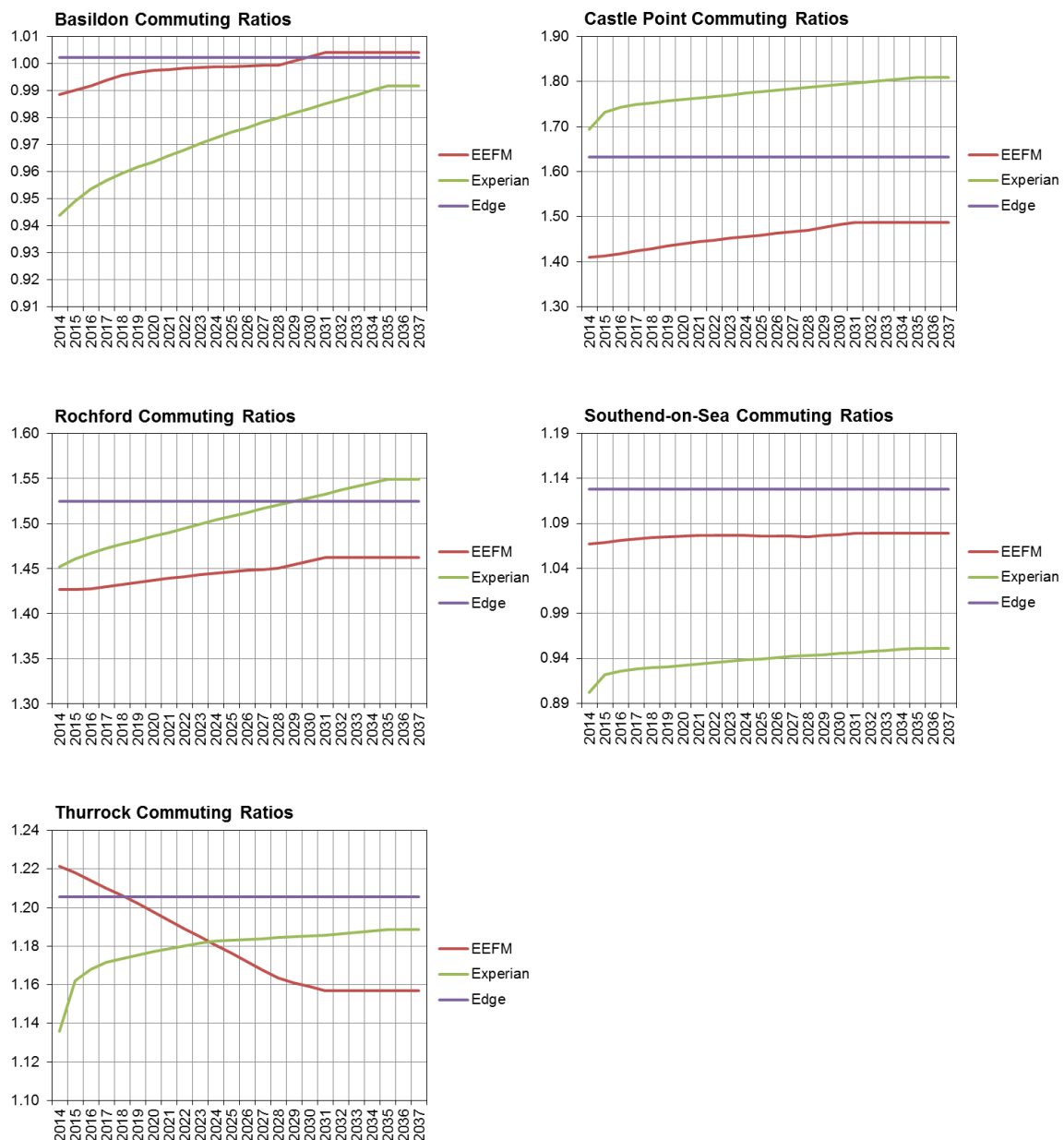
Source: Edge Analytics, 2015

It is noted that again there is variation with regard to the commuting assumptions. The largest differences are found in Southend-on-Sea where the Experian forecast assumes a net in-commute into the area throughout the whole of the forecast period, whereas the other two sets of assumptions maintain the ratio above 1.00 suggesting continuing out-commuting out of the area. Considerable differences are also noted in Castle Point where all sets of assumptions imply net out-commute out of the area but the level of this out-commute varies considerably, with the Experian forecast suggesting the highest out-commute and the EEFM, in contrast, the lowest.

Employment-led Scenarios

The following employment-led scenarios have therefore been modelled within POPGROUP by Edge Analytics. The breadth of these forecasts are intended to represent the uncertainties associated with balancing job growth, labour-force behaviour and thereby population growth:

- **EEFM Jobs**: demographic change is linked to the growth in total employment from the 2014 Baseline EEFM model; Edge Analytics assumptions on economic activity, unemployment and commuting are used

- **EEFM Jobs OBRadj**: demographic change is linked to the growth in total employment from the 2014 Baseline EEFM model; OBR-derived assumptions on economic activity are used, with Edge Analytics assumptions on unemployment and commuting

- **EEFM Employed People**: demographic change is linked to the growth in the number of workplace employed people from the 2014 Baseline EEFM model; Edge Analytics assumptions on economic activity, unemployment and commuting are used

- **EEFM Employed People OBRadj**: demographic change is linked to the growth in the number of workplace employed people from the 2014 Baseline EEFM model; OBR-derived assumptions on economic activity are used, with Edge Analytics' assumptions on unemployment and commuting

- **EEFM Employed People - EEFM**: demographic change is linked to the growth in the number of workplace employed people from the 2014 Baseline EEFM model; EEFM-derived assumptions on economic activity, unemployment and commuting are used. It is noted that this scenario is not given significant weight in the analysis as the level of data available from the EEFM model presents challenges in accurately integrating assumptions into POPGROUP. The purpose of the scenario is to illustrate the potential differences in assumptions used in the EEFM and POPGROUP and their implications for population and household growth.

- **Exp Jobs**: demographic change is linked to the growth in the 'workforce jobs' from the Experian forecast; Edge Analytics assumptions on economic activity, unemployment and commuting are used

- **Exp Jobs OBRadj**: demographic change is linked to the growth in the 'workforce jobs' from the Experian forecast; OBR-derived assumptions on economic activity are used, with Edge Analytics assumptions on unemployment and commuting

- **Exp WorkEmp**: demographic change is linked to the growth in the 'workplace based employment' from the Experian forecast; Edge Analytics assumptions on economic activity, unemployment and commuting are used

- **Exp WorkEmp OBRadj**: demographic change is linked to the growth in the 'workplace based employment' from the Experian forecast; OBR-derived assumptions on economic activity are used, with Edge Analytics assumptions on unemployment and commuting

- **Exp WorkEmp - EXP**: demographic change is linked to the growth in the 'workplace based employment' from the Experian forecast; Experian-derived assumptions on economic activity, unemployment and commuting are used. As with the EEFM Employed People – EEFM scenario weight is not given to this scenario. The comparative availability of data from Experian, noting that this drew on data directly sourced from Experian for this project, does mean that this scenario is considered more robust in illustrating the impacts in POPGROUP than the comparative scenario using the EEFM assumptions.

To ensure consistency with demographic scenarios, growth forecasts for the final year of each of the economic forecasts (i.e. 2031 for the EEFM model and 2035 for the Experian forecast) are continued to 2037.

Modelling Outputs

The following tables compare in full the outputs of the employment led modelling using the three different sets of assumptions for the TGSE as a whole and then each of the authorities across the TGSE.

TGSE

For the TGSE HMA overall, the **Exp Jobs** and **Exp WorkEmp** scenarios record the highest population growth outcomes of all scenarios at 24.2% and 21.6% respectively, with the corresponding average annual dwelling requirements of 3,863 and 3,530 per year, assuming that household formation rates follow the trend in the 2012-based household model. This reflects the higher jobs growth assumed in the Experian forecast compared to the EEFM model.

The application of the alternative assumptions on economic activity rates, commuting and unemployment derived from the respective economic forecasts lowers the need for in-migration required to meet the jobs growth targets. In turn, this lowers the expected population growth over the forecast period.

In terms of the implied dwelling growth, the application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 2,912 to 4,081 per year.

Figure 3.15   TGSE Employment-led Scenarios, Population Growth, 2001 – 2037
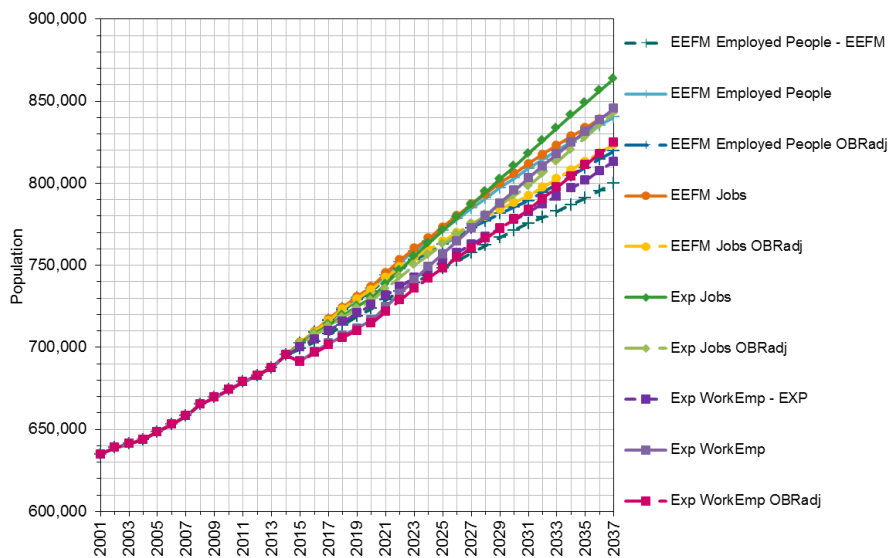
Table 3.9   TGSE Employment-led Scenarios, Outcomes, 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	168,260	24.2%	86,082	29.9%	4,760	3,863	2,203
Exp WorkEmp	149,987	21.6%	78,643	27.3%	4,102	3,530	1,875
EEFM Jobs	148,803	21.4%	78,038	27.1%	3,911	3,496	1,857
Exp Jobs OBRadj	147,272	21.2%	77,681	26.9%	3,971	3,486	2,203
EEFM Employed People	144,795	20.8%	76,475	26.5%	3,765	3,427	1,777
Exp WorkEmp OBRadj	129,345	18.6%	70,371	24.4%	3,325	3,159	1,875
EEFM Jobs OBRadj	128,116	18.4%	69,748	24.2%	3,133	3,124	1,857
EEFM Employed People OBRadj	124,165	17.9%	68,206	23.7%	2,989	3,056	1,777
Exp WorkEmp - EXP	117,792	16.9%	65,991	22.9%	2,812	2,961	1,875
EEFM Employed People - EEFM	104,615	15.0%	60,592	21.0%	2,305	2,714	1,777

Scenario (HH-12 R)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	168,260	24.2%	90,950	31.6%	4,760	4,081	2,203
Exp WorkEmp	149,987	21.6%	83,402	29.0%	4,102	3,744	1,875
EEFM Jobs	148,803	21.4%	82,673	28.7%	3,911	3,704	1,857
Exp Jobs OBRadj	147,272	21.2%	82,424	28.6%	3,971	3,699	2,203
EEFM Employed People	144,795	20.8%	81,091	28.2%	3,765	3,634	1,777
Exp WorkEmp OBRadj	129,345	18.6%	75,008	26.0%	3,325	3,367	1,875
EEFM Jobs OBRadj	128,116	18.4%	74,263	25.8%	3,133	3,327	1,857
EEFM Employed People OBRadj	124,165	17.9%	72,702	25.2%	2,989	3,257	1,777
Exp WorkEmp - EXP	117,792	16.9%	70,517	24.5%	2,812	3,164	1,875
EEFM Employed People - EEFM	104,615	15.0%	65,001	22.6%	2,305	2,912	1,777

Basildon

The **Exp Jobs** and **Exp WorkEmp** scenarios record the highest population growth outcomes of all scenarios at 21.5% and 18.7% respectively, with the corresponding average annual dwelling requirements of 886 and 794 per year, assuming that household formation rates follow the trend in the 2012-based household model. This reflects the higher jobs growth assumed in the Experian forecast compared to the EEFM model.

The application of the alternative assumptions on economic activity rates, commuting and unemployment derived from the respective economic forecasts, lowers the need for in-migration required to meet the jobs growth targets which in turn lowers the expected population growth over the forecast period.

In terms of the implied dwelling growth, the application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 701 to 931 per year.

Figure 3.16   Basildon Employment-led Scenarios, Population Growth, 2001 – 2037

Table 3.10   Basildon Employment-led Scenarios, Outcomes, 2014 – 2037

| Scenario (HH-12) | Change 2014 - 2037 | | | | Average per year | | |
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	38,841	21.5%	20,020	26.5%	787	886	583
Exp Jobs OBRadj	33,823	18.7%	17,977	23.8%	600	795	583
Exp WorkEmp	33,783	18.7%	17,938	23.7%	601	794	473
EEFM Jobs	32,526	18.0%	17,489	23.1%	532	774	442
EEFM Employed People	31,108	17.2%	16,910	22.4%	480	748	412
Exp WorkEmp OBRadj	28,846	16.0%	15,927	21.1%	418	705	473
EEFM Employed People - EEFM	28,745	15.9%	15,939	21.1%	393	705	412
EEFM Jobs OBRadj	27,584	15.3%	15,475	20.5%	349	685	442
Exp WorkEmp - EXP	27,272	15.1%	15,320	20.3%	347	678	473
EEFM Employed People OBRadj	26,189	14.5%	14,905	19.7%	297	659	412

| Scenario (HH-12 R) | Change 2014 - 2037 | | | | Average per year | | |
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	38,841	21.5%	21,030	27.8%	787	931	583
Exp Jobs OBRadj	33,823	18.7%	18,964	25.1%	600	839	583
Exp WorkEmp	33,783	18.7%	18,922	25.0%	601	837	473
EEFM Jobs	32,526	18.0%	18,459	24.4%	532	817	442
EEFM Employed People	31,108	17.2%	17,873	23.7%	480	791	412
Exp WorkEmp OBRadj	28,846	16.0%	16,887	22.4%	418	747	473
EEFM Employed People - EEFM	28,745	15.9%	16,891	22.4%	393	747	412
EEFM Jobs OBRadj	27,584	15.3%	16,423	21.7%	349	727	442
Exp WorkEmp - EXP	27,272	15.1%	16,269	21.5%	347	720	473
EEFM Employed People OBRadj	26,189	14.5%	15,845	21.0%	297	701	412

Castle Point

The **Exp Jobs** and **Exp WorkEmp** scenarios record the highest population growth outcomes of all scenarios at 20.8% and 17.2% respectively, with the corresponding average annual dwelling requirements of 438 and 378 per year, assuming that household formation rates follow the trend in the 2012-based household model. This reflects the considerably higher jobs growth assumed in the Experian forecast compared to the EEFM model.

The application of the alternative assumptions on economic activity rates, commuting and unemployment derived from the respective economic forecasts, lowers the need for in-migration required to meet the jobs growth targets which in turn lowers the expected population growth over the forecast period.

In terms of the implied dwelling growth, the application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 265 to 470 per year.

Figure 3.17 Castle Point Employment-led Scenarios, Population Growth, 2001 – 2037

Table 3.11   Castle Point Employment-led Scenarios, Outcomes, 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	18,515	20.8%	9,735	26.3%	1,017	438	112
Exp Jobs OBRadj	15,536	17.5%	8,563	23.1%	898	385	112
Exp WorkEmp	15,249	17.2%	8,413	22.7%	890	378	70
Exp WorkEmp OBRadj	12,340	13.9%	7,266	19.6%	774	327	70
EEFM Employed People	10,854	12.2%	6,810	18.4%	702	306	9
EEFM Jobs	10,777	12.1%	6,776	18.3%	699	305	8
Exp WorkEmp - EXP	10,650	12.0%	6,645	18.0%	703	299	70
EEFM Employed People OBRadj	8,004	9.0%	5,681	15.4%	589	255	9
EEFM Jobs OBRadj	7,930	8.9%	5,647	15.3%	586	254	8
EEFM Employed People - EEFM	6,997	7.9%	5,263	14.2%	550	237	9

Scenario (HH-12 R)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	18,515	20.8%	10,462	28.3%	1,017	470	112
Exp Jobs OBRadj	15,536	17.5%	9,268	25.1%	898	417	112
Exp WorkEmp	15,249	17.2%	9,118	24.7%	890	410	70
Exp WorkEmp OBRadj	12,340	13.9%	7,950	21.5%	774	357	70
EEFM Employed People	10,854	12.2%	7,469	20.2%	702	336	9
EEFM Jobs	10,777	12.1%	7,434	20.1%	699	334	8
Exp WorkEmp - EXP	10,650	12.0%	7,314	19.8%	703	329	70
EEFM Employed People OBRadj	8,004	9.0%	6,319	17.1%	589	284	9
EEFM Jobs OBRadj	7,930	8.9%	6,286	17.0%	586	283	8
EEFM Employed People - EEFM	6,997	7.9%	5,893	16.0%	550	265	9

Rochford

The **Exp Jobs** and **Exp WorkEmp** scenarios record the highest population growth outcomes of all scenarios at 22.3% and 18.8% respectively, with the corresponding average annual dwelling requirements of 414 and 362 per year, assuming that household formation rates follow the trend in the 2012-based household model. This reflects the higher jobs growth assumed in the Experian forecast compared to the EEFM model.

The application of the alternative assumptions on economic activity rates, commuting and unemployment derived from the respective economic forecasts, lowers the need for in-migration required to meet the jobs growth targets which in turn lowers the expected population growth over the forecast period.

In terms of the implied dwelling growth, the application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 298 to 438 per year.

**Figure 3.18   Rochford Employment-led Scenarios, Population Growth, 2001 – 2037**

Legend:
- EEFM Employed People - EEFM
- EEFM Employed People
- EEFM Employed People OBRadj
- EEFM Jobs
- EEFM Jobs OBRadj
- Exp Jobs
- Exp Jobs OBRadj
- Exp WorkEmp - EXP
- Exp WorkEmp
- Exp WorkEmp OBRadj

Table 3.12   Rochford Employment-led Scenarios, Outcomes, 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	18,888	22.3%	9,281	27.1%	796	414	136
Exp Jobs OBRadj	15,995	18.9%	8,165	23.8%	683	364	136
Exp WorkEmp	15,914	18.8%	8,108	23.6%	684	362	93
EEFM Jobs	15,417	18.2%	7,996	23.3%	652	357	83
EEFM Employed People	15,337	18.1%	7,967	23.2%	648	355	82
Exp WorkEmp OBRadj	13,084	15.4%	7,014	20.4%	573	313	93
EEFM Jobs OBRadj	12,573	14.8%	6,896	20.1%	541	308	83
EEFM Employed People OBRadj	12,494	14.7%	6,867	20.0%	538	306	82
EEFM Employed People - EEFM	12,370	14.6%	6,806	19.8%	535	304	82
Exp WorkEmp - EXP	10,895	12.9%	6,205	18.1%	483	277	93

Scenario (HH-12 R)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	18,888	22.3%	9,987	29.2%	796	446	136
Exp Jobs OBRadj	15,995	18.9%	8,847	25.8%	683	395	136
Exp WorkEmp	15,914	18.8%	8,790	25.7%	684	392	93
EEFM Jobs	15,417	18.2%	8,658	25.3%	652	386	83
EEFM Employed People	15,337	18.1%	8,628	25.2%	648	385	82
Exp WorkEmp OBRadj	13,084	15.4%	7,674	22.4%	573	342	93
EEFM Jobs OBRadj	12,573	14.8%	7,536	22.0%	541	336	83
EEFM Employed People OBRadj	12,494	14.7%	7,506	21.9%	538	335	82
EEFM Employed People - EEFM	12,370	14.6%	7,442	21.7%	535	332	82
Exp WorkEmp - EXP	10,895	12.9%	6,840	20.0%	483	305	93

Southend-on-Sea

The **Exp Jobs** and **Exp WorkEmp** scenarios record the highest population growth outcomes of all scenarios at 24.8% and 23.4% respectively, with the corresponding average annual dwelling requirements of 1,120 and 1,070 per year, assuming that household formation rates follow the trend in the 2012-based household model. This reflects the considerably higher jobs growth assumed in the Experian forecast compared to the EEFM model.

The application of the alternative assumptions on economic activity rates, commuting and unemployment derived from the respective economic forecasts, lowers the need for in-migration required to meet the jobs growth targets which in turn lowers the expected population growth over the forecast period.

In terms of the implied dwelling growth, the application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 716 to 1,183 per year.

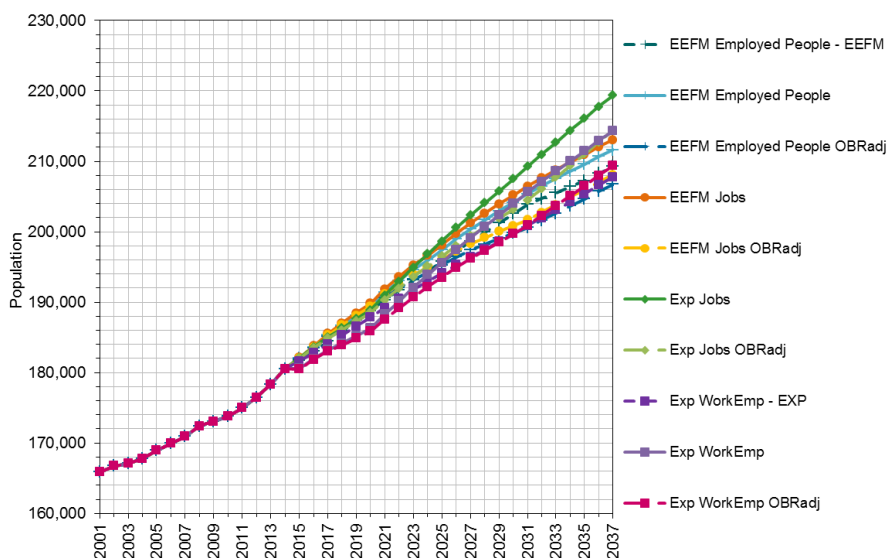**Figure 3.19   Southend-on-Sea Employment-led Scenarios, Population Growth, 2001 –
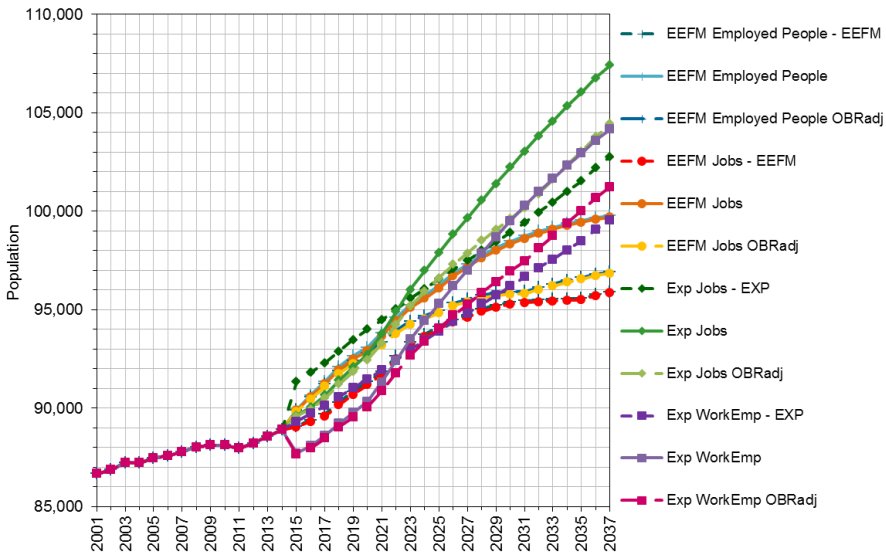2037**
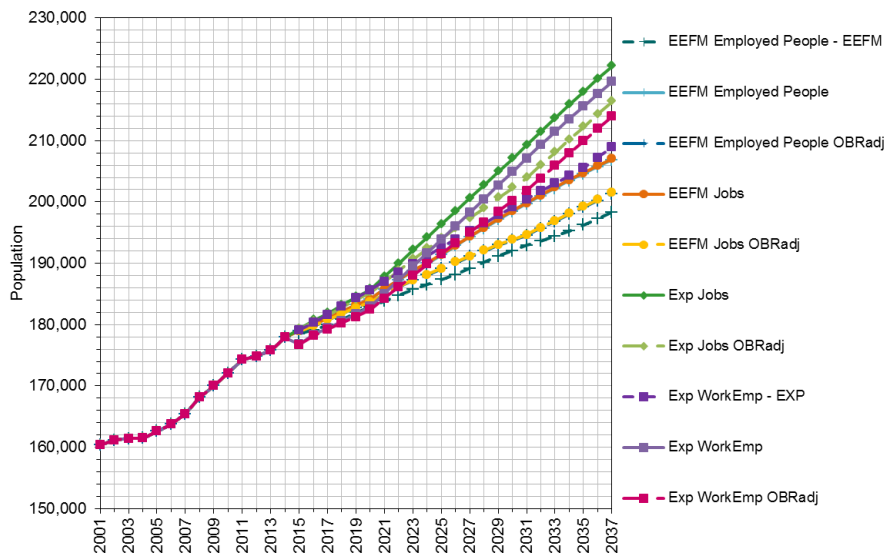
Table 3.13   Southend-on-Sea Employment-led Scenarios, Outcomes, 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	44,180	24.8%	24,477	31.8%	1,381	1,120	611
Exp WorkEmp	41,688	23.4%	23,380	30.4%	1,296	1,070	564
Exp Jobs OBRadj	38,437	21.6%	22,056	28.7%	1,166	1,009	611
Exp WorkEmp OBRadj	36,000	20.2%	20,982	27.3%	1,083	960	564
Exp WorkEmp - EXP	30,980	17.4%	18,953	24.7%	871	867	564
EEFM Jobs	29,090	16.3%	18,163	23.6%	797	831	317
EEFM Employed People	28,922	16.3%	18,092	23.5%	790	828	314
EEFM Jobs OBRadj	23,589	13.3%	15,834	20.6%	591	725	317
EEFM Employed People OBRadj	23,423	13.2%	15,764	20.5%	584	721	314
EEFM Employed People - EEFM	20,392	11.5%	14,475	18.8%	470	662	314

Scenario (HH-12 R)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Exp Jobs	44,180	24.8%	25,843	33.6%	1,381	1,183	611
Exp WorkEmp	41,688	23.4%	24,731	32.2%	1,296	1,132	564
Exp Jobs OBRadj	38,437	21.6%	23,381	30.4%	1,166	1,070	611
Exp WorkEmp OBRadj	36,000	20.2%	22,291	29.0%	1,083	1,020	564
Exp WorkEmp - EXP	30,980	17.4%	20,208	26.3%	871	925	564
EEFM Jobs	29,090	16.3%	19,401	25.2%	797	888	317
EEFM Employed People	28,922	16.3%	19,329	25.1%	790	885	314
EEFM Jobs OBRadj	23,589	13.3%	17,032	22.1%	591	779	317
EEFM Employed People OBRadj	23,423	13.2%	16,961	22.1%	584	776	314
EEFM Employed People - EEFM	20,392	11.5%	15,648	20.3%	470	716	314

Thurrock

Unlike the other areas, in Thurrock the EEFM forecast assumes higher jobs growth than the Experian forecast. As a result, the **EEFM Jobs** and **EEFM Employed People** scenarios record the highest population growth outcomes of all scenarios at 37.4% and 35.9% respectively, with the corresponding average annual dwelling requirements of 1,230 and 1,189 per year, assuming that household formation rates follow the trend in the 2012-based household model.

The application of the alternative assumptions on economic activity rates, commuting and unemployment derived from the respective economic forecasts, lowers the need for in-migration required to meet the jobs growth targets which in turn lowers the expected population growth over the forecast period. This is particularly evident in the **EEFM Employed People – EEFM** scenario.

In terms of the implied dwelling growth, the application of the alternative headship rates assumptions (**HH-12 R**) results in a higher average annual dwelling requirement for all scenarios ranging from 852 to 1,279 per year.

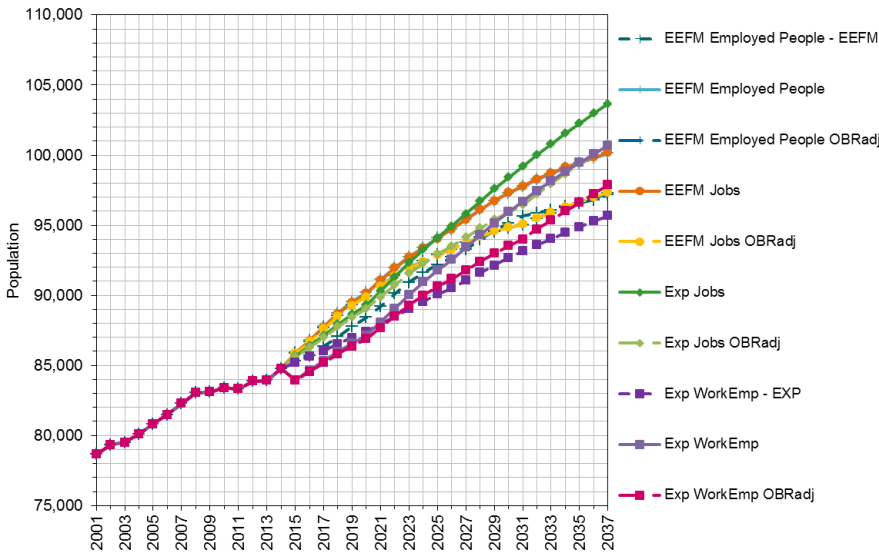**Figure 3.20   Thurrock Employment-led Scenarios, Population Growth, 2001 – 2037**
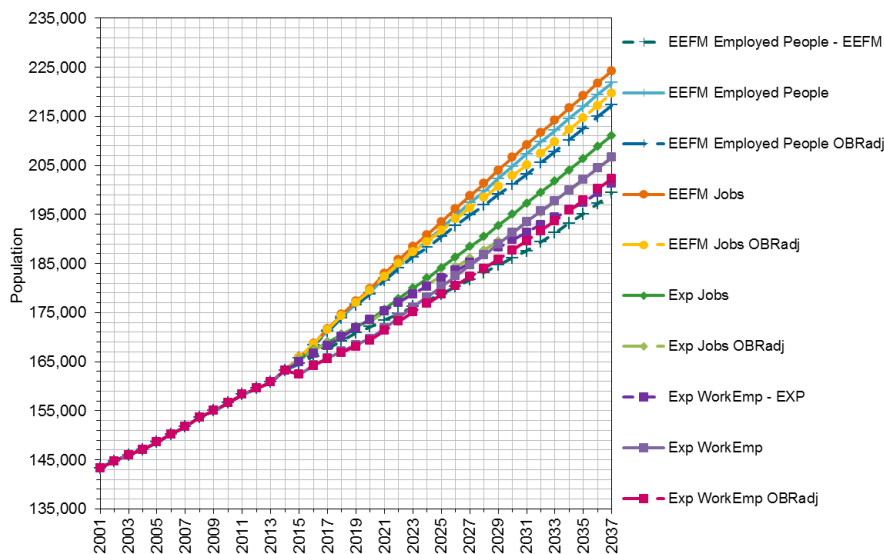
Table 3.13   Thurrock Employment-led Scenarios, Outcomes, 2014 – 2037

Scenario (HH-12)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
EEFM Jobs	60,992	37.4%	27,615	42.8%	1,231	1,230	1,006
EEFM Employed People	58,573	35.9%	26,697	41.4%	1,144	1,189	960
EEFM Jobs OBRadj	56,440	34.6%	25,896	40.1%	1,067	1,153	1,006
EEFM Employed People OBRadj	54,054	33.1%	24,990	38.7%	982	1,113	960
Exp Jobs	47,835	29.3%	22,569	35.0%	780	1,005	761
Exp Jobs OBRadj	43,481	26.6%	20,919	32.4%	623	932	761
Exp WorkEmp	43,353	26.6%	20,804	32.2%	632	927	676
Exp WorkEmp OBRadj	39,075	23.9%	19,182	29.7%	478	854	676
Exp WorkEmp - EXP	37,996	23.3%	18,869	29.2%	408	840	676
EEFM Employed People - EEFM	36,111	22.1%	18,110	28.1%	358	807	960

Scenario (HH-12 R)	Change 2014 - 2037				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
EEFM Jobs	60,992	37.4%	28,720	44.6%	1,231	1,279	1,006
EEFM Employed People	58,573	35.9%	27,792	43.2%	1,144	1,238	960
EEFM Jobs OBRadj	56,440	34.6%	26,987	41.9%	1,067	1,202	1,006
EEFM Employed People OBRadj	54,054	33.1%	26,071	40.5%	982	1,161	960
Exp Jobs	47,835	29.3%	23,628	36.7%	780	1,052	761
Exp Jobs OBRadj	43,481	26.6%	21,964	34.1%	623	978	761
Exp WorkEmp	43,353	26.6%	21,842	33.9%	632	973	676
Exp WorkEmp OBRadj	39,075	23.9%	20,205	31.4%	478	900	676
Exp WorkEmp - EXP	37,996	23.3%	19,886	30.9%	408	886	676
EEFM Employed People - EEFM	36,111	22.1%	19,127	29.7%	358	852	960

Summary and Implications

Collectively, the forecasts presented in this Appendix provide a relatively consistent indication of the scale of job growth in TGSE as a whole, although it is understood that this will continue to be assessed through separate economic evidence which is in the process of being commissioned by TGSE authorities.

Considering the growth in labour force required to support this forecast job growth is, however, complex, given that this is sensitive to the assumptions made about economic participation. While Edge Analytics typically make conservative assumptions about changes to economic activity – linked to changes in state pension ages – both Experian and EEFM include their own assumptions about the capacity of existing residents to support job growth. It is beneficial, therefore, to consider the assumptions in the economic forecasting models, although a number of these assumptions – particularly regarding economic activity rates amongst older people – appear to represent significant departures from historic evidence. This effectively implies that forecast levels of job growth can be supported by a lower level of population growth, by making greater use of the existing labour force and reducing the need for in-migration of working age persons.

Given this significant variation – and the inherent uncertainty in predicting how economic activity rates will change in future – it is beneficial to consider assumptions by EEFM and Experian alongside a variant set of assumptions applied by Edge Analytics. This enables a transparent set of assumptions to be assessed within the modelling to understand its implications. Two variant sets of economic activity rates have been used in the modelling. The first sensitivity applies an adjustment primarily associated with the impact of changes to state pension ages, while the second draws upon the OBR's assessment of the likely changing rates of older cohorts in the workforce over the projection period. Neither approach is suggested as being preferential, with all modelling outputs considered in this study.

The extent to which the models assume an increasing proportion of people undertaking more than one job has also been highlighted in the consideration of input and output data in the models. This aspect has also been considered in the POPGROUP modelling outputs using both the forecasts own assumptions and a variant sensitivity which does not seek to make any assumption around double-jobbing going forward.

Commuting also represents an area of uncertainty noting that the forecasting houses take differing views on how this may change. In the modelling of variant scenarios for transparency the assumption is that rates remain fixed. This reflects the PAS guidance on this issue and again allows a level of transparency in the modelling outputs used in POPGROUP. It is important to recognise in alignment with the PPG that the balance of jobs and population growth / housing need must be considered at the HMA level recognising the significant travel to work relationships between the authorities in this geography.

Appendix 4: Edge Analytics Modelling Assumptions

POPGROUP Methodology

Evidence is often challenged on the basis of the appropriateness of the methodology that has been employed to develop growth forecasts. The use of a recognised forecasting product which incorporates an industry-standard methodology (a cohort component model) removes this obstacle and enables a focus on assumptions and output, rather than methods.

Demographic forecasts have been developed using the POPGROUP suite of products. POPGROUP is a family of demographic models that enables forecasts to be derived for population, households and the labour force, for areas and social groups. The main POPGROUP model is a cohort component model, which enables the development of population forecasts based on births, deaths and migration inputs and assumptions.

The Derived Forecast (DF) model sits alongside the population model, providing a headship rate model for household projections and an economic activity rate model for labour force projections.

The latest development in the POPGROUP suite of demographic models is POPGROUP v.4, which was released in January 2014. A number of changes have been made to the POPGROUP model to improve its operation and to ensure greater consistency with ONS forecasting methods. The most significant methodological change relates to the handling of internal migration in the POPGROUP forecasting model. The level of internal in-migration to an area is now calculated as a rate of migration relative to a defined 'reference population' (by default the UK population), rather than as a rate of migration relative to the population of the area itself (as in the previous version of POPGROUP model, POPGROUP v3.1). This approach ensures a closer alignment with the 'multi-regional' approach to modelling migration that is used by ONS.

For further information on POPGROUP, please refer to the Edge Analytics website: http://edgeanalytics.co.uk/popgroup.

Figure 4.1   POPGROUP population projection methodology
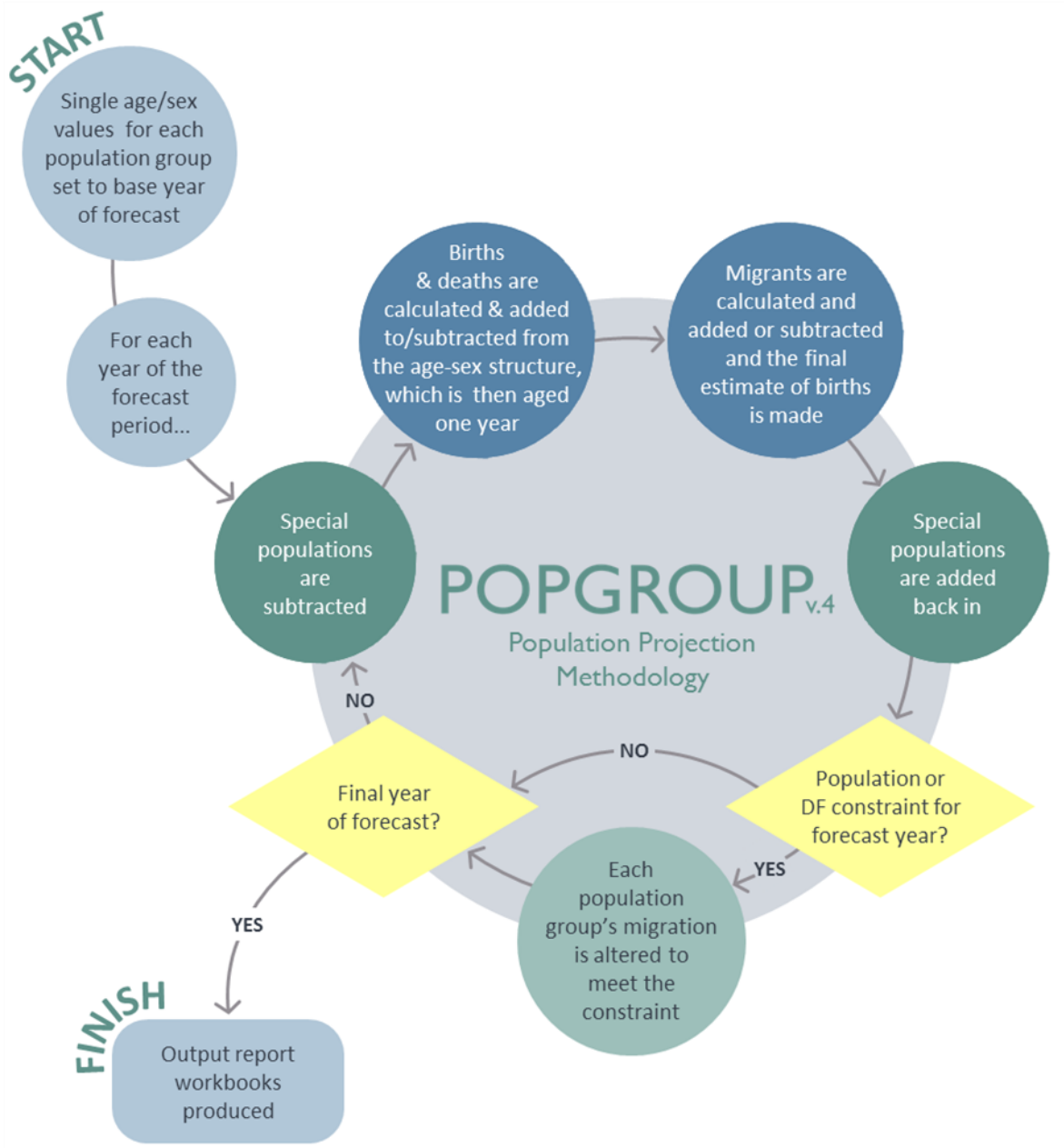
Figure 4.2   Derived Forecast (DF) methodology

$$D_{a,s,u,y,d,g} = \frac{P_{a,s,u,y,g}\, R_{a,s,u,y,d,g}}{100}$$

D	Derived Category Forecast	y	Year
P	Population 'at risk' Forecast	d	Derived category
R	Derived Category Rates	g	Group (usually an
a	Age-group		area, but can be an
s	Sex		ethnic group or
u	Sub-population		social group)
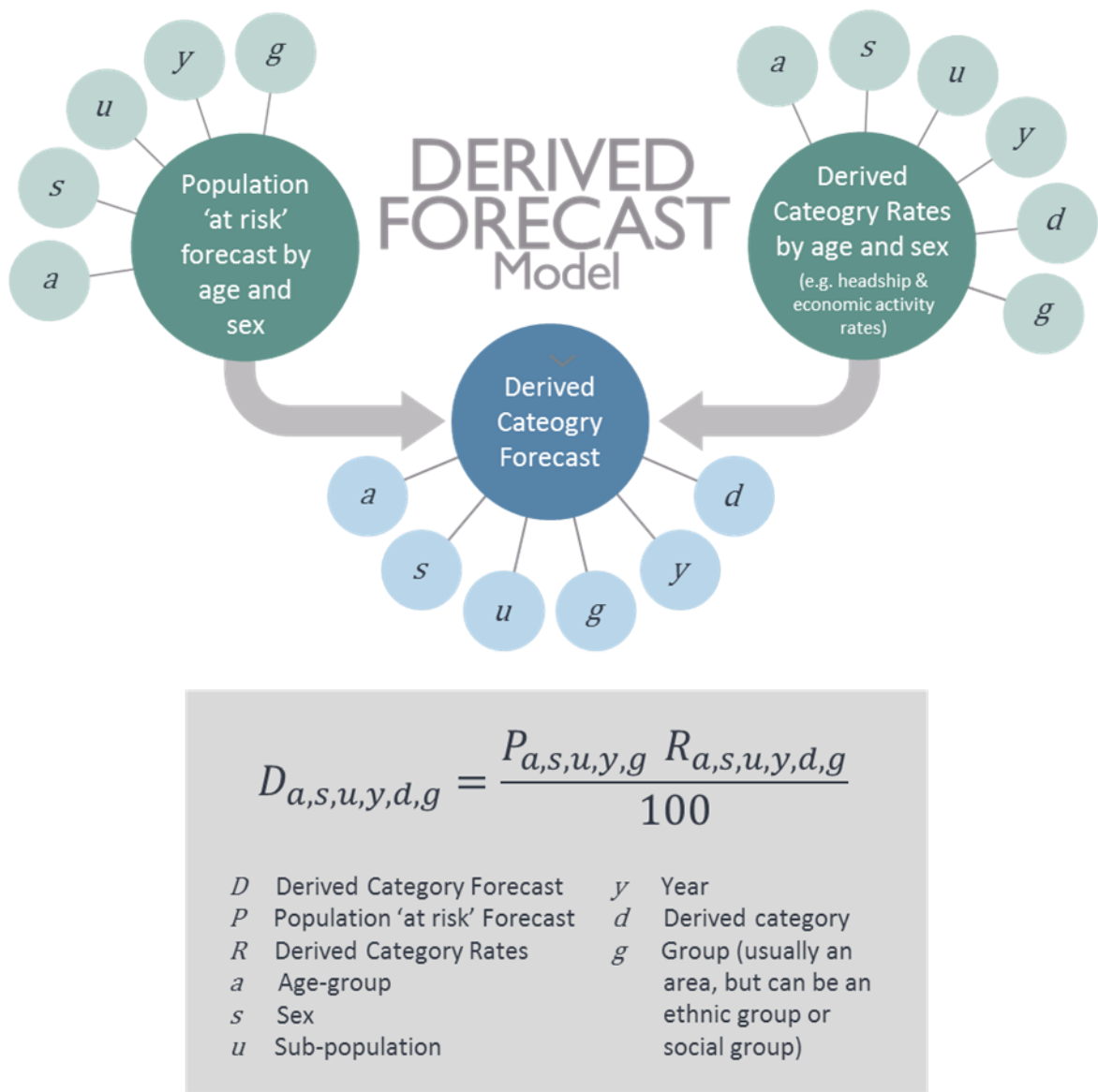
Data Inputs and Assumptions

Edge Analytics has developed a suite of demographic scenarios for the five Local Authority Districts comprising the TGSE area using POPGROUP v.4 and the Derived Forecast model. The POPGROUP suite of demographic models draws data from a number of sources, building an historical picture of population, households, fertility, mortality and migration on which to base its scenario forecasts. Using historical data evidence for 2001–2014, in conjunction with

information from ONS sub-national population projections (SNPPs) and DCLG household projections, a series of assumptions have been derived which drive the scenario forecasts.

The following scenarios have been produced:

- SNPP-2012

- SNPP-2012-LDN

- Natural Change

- PG-5yr

- PG-5yr-X

- PG-10yr

- PG-10yr-X

- EEFM Employed People

- EEFM Employed People – EEFM

- EEFM Employed People - OBRadj

- EEFM Jobs

- EEFM Jobs - OBRadj

- Exp Jobs

- Exp Jobs – OBRadj

- Exp WorkEmp

- Exp WorkEmp – EXP

- Exp WorkEmp – OBRadj

A narrative on the data inputs and assumptions underpinning the scenarios is presented in the following sections.

Population, Births & Deaths

Population
In each scenario, historical population statistics are provided by the mid-year population estimates (MYEs) for 2001–2014, with all data recorded by single-year of age and sex. These data include the revised MYEs for 2002–2010, which were released by the ONS in May 2013. The revised MYEs provide consistency in the measurement of the components of change (i.e. births, deaths, internal migration and international migration) between the 2001 and 2011 Censuses.

In the **SNPP-2012** scenario, future population counts are provided by single-year of age and sex from 2012 (i.e. not including the 2013-based MYE), to ensure consistency with the trajectory of the ONS 2012-based SNPP.

Births & Fertility

In each scenario, historical mid-year to mid-year counts of births by sex from 2001/02 to 2013/14 have been sourced from the ONS revised MYEs.

In the **SNPP-2012** and **SNPP-2012-LDN** scenarios, future counts of births are specified to ensure consistency with the official projections.

In the other scenarios, a 'local' (i.e. area-specific) age-specific fertility rate (ASFR) schedule, which measures the expected fertility rates by age in 2013/14, is included in the POPGROUP model assumptions. This is derived from the ONS 2012-based SNPP.

Long-term assumptions on changes in age-specific fertility rates are taken from the ONS 2012-based SNPP.

In combination with the 'population-at-risk' (i.e. all women between the ages of 15–49), the area-specific ASFR and future fertility rate assumptions provide the basis for the calculation of births in each year of the forecast period.

Deaths & Mortality

In each scenario, historical mid-year to mid-year counts of deaths by age and sex from 2001/02 to 2013/14 have been sourced from the ONS revised MYEs.

In the **SNPP-2012** and **SNPP-2012-LDN** scenarios, future counts of deaths are specified to ensure consistency with the official projections.

In the other scenarios, a 'local' (i.e. area-specific) age-specific mortality rate (ASMR) schedule, which measures the expected mortality rates by age and sex in 2013/14 is included in the POPGROUP model assumptions. This is derived from the ONS 2012-based SNPP.

Long-term assumptions on changes in age-specific mortality rates are taken from the ONS 2012-based SNPP.

In combination with the 'population-at-risk' (i.e. the total population), the area-specific ASMR and future mortality rate assumptions provide the basis for the calculation of deaths in each year of the forecast period.

Migration

Internal Migration

In all scenarios, historical mid-year to mid-year estimates of in- and out-migration by five year age group and sex from 2001/02 to 2013/14 have been sourced from the 'components of population change' files that underpin the ONS MYEs. These internal migration flows are estimated using data from the Patient Register (PR), the National Health Service Central Register (NHSCR) and Higher Education Statistics Agency (HESA).

In the **SNPP-2012** scenario, future counts of internal migrants are specified, to ensure consistency with the official projections.

In the **SNPP-2012-LDN** scenario, future counts of internal migrants are specified that include migration uplift suggested by the GLA 2013 round **Central** scenario added to the official projections.

In the **Natural Change** scenario, internal in- and out-migration flows are set to zero for each year in the forecast period (i.e. no in- or out-migration occurs).

In the alternative trend scenarios, future internal migration flows are based on the area-specific historical migration data. In the **PG-5yr** and **PG-5yr-X** scenarios, a five year internal migration history is used (2009/10 to 2013/14). In the **PG10yr** and **PG-10yr-X** scenarios, a ten year history is used (2004/05 to 2013/14).

In the alternative trend scenarios (i.e. **PG-5yr**, **PG-5yr-X**, **PG-10yr** and **PG-10yr-X**), the relevant historical time period is used to derive the age-specific migration rate (ASMigR) schedules, which are then used to determine the future number of in- and out-migrants. In the case of internal in-migration, the ASMigR schedules are applied to an external 'reference' population (i.e. the population 'at-risk' of migrating into the area). This is different to the other components (i.e. births, deaths, internal out-migration and international migration), where the schedule of rates is applied to the area-specific population (i.e. the population 'at-risk' of migrating out of the area). The reference population used in the development of the scenarios presented in this report is the UK population.

The jobs-led scenarios (i.e. **EEFM Employed People**, **EEFM Employed People – EEFM**, **EEFM Jobs**, **Exp Jobs, Exp WorkEmp** and **Exp WorkEmp – EXP**) calculate their own internal migration assumptions to ensure an appropriate balance between the population and the targeted increase in the number of jobs that is defined in each year of the forecast period. A higher level of net internal migration will occur if there is insufficient population and resident labour force to meet the forecast number of jobs. In the jobs-led scenarios, the profile of internal migrants is defined by an ASMigR schedule, derived from the ONS 2012-based SNPP.

International Migration

Historical mid-year to mid-year counts of immigration and emigration by 5-year age group and sex from 2001/02 to 2013/14 have been sourced from the 'components of population change' files that underpin the ONS MYEs. Any 'adjustments' made to the MYEs to account for asylum cases are included in the international migration balance.

Implied within the international migration component of change in all scenarios is an 'unattributable population change' (UPC) figure, which ONS identified within its latest mid-year estimate revisions. The POPGROUP model has assigned the UPC to international migration as it is the component with the greatest uncertainty associated with its estimation. In the '**X**' scenarios, the UPC adjustment is not included in the international migration assumptions.

In all scenarios, future international migration assumptions are defined as 'counts' of migration. In the **SNPP-2012** and **SNPP-2012-LDN** scenarios, the international in- and out-migration counts are drawn directly from the ONS 2012-based SNPP.

In the **Natural Change** scenario, the future migration counts set the in- and out-migration flows to zero for each year in the forecast period (i.e. no in- or out-migration occurs).

In the alternative trend scenarios, the international in- and out-migration counts are derived from the area-specific historical migration data. In the **PG-5yr** and **PG-5yr-X** scenarios, a five year international migration history is used (2009/10 to 2013/14). In the **PG-10yr** and **PG-10yr-X** scenarios, a ten year history is used (2004/05 to 2013/14).

In all scenarios, an ASMigR schedule of rates is derived from either a five year or ten year migration history and is used to distribute future counts by single year of age.

In the jobs-led scenarios, international migration counts are taken from the ONS 2012-based SNPP (i.e. counts are consistent with the **SNPP-2012** scenario). An ASMigR schedule of rates from the ONS 2012-based SNPP is used to distribute future counts by single year of age.

Households & Dwellings

The 2011 Census defines a household as:

> *"one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area."*

In POPGROUP, a dwelling is defined as a unit of accommodation which can either be occupied by one household or vacant.

The household and dwelling implications of the population growth trajectory have been evaluated through the application of headship rate statistics, communal population statistics and a dwelling vacancy rate. These data assumptions have been sourced from the 2001 and 2011 Censuses and the 2012-based household projection model from the DCLG.

Household Headship Rates
A household headship rate (also known as household representative rate) is the "*probability of anyone in a particular demographic group being classified as being a household representative*".

The household headship rates used in the POPGROUP modelling have been taken from the DCLG 2012-based household projections. The DCLG household projections are derived through the application of projected headship rates to a projection of the private household population. The methodology used by DCLG in its household projection models consists of two distinct stages:

• Stage One produces the national and local authority projections for the total number of households by sex, age-group and relationship-status group over the projection period. All Stage One output and assumptions for the 2012-based household projection model have been released by DCLG.

• Stage Two provides the detailed 'household-type' projection by age-group, controlled to the previous Stage One totals. Stage Two assumptions and output for the 2012-based model have yet to be released by DCLG.

In POPGROUP, the 2012-based headship rates are defined by age, sex and relationship status. These rates therefore determine the likelihood of person of a particular age-group, sex and

relationship status being head of a household in a particular year, given the age-sex structure of the population.

Communal Population Statistics

Household projections in POPGROUP exclude the population 'not-in-households' (i.e. the communal/institutional population). These data are drawn from the DCLG 2012-based household projections, which use statistics from the 2011 Census. Examples of communal establishments include prisons, residential care homes and student halls of residence.

For ages 0–74, the number of people in each age group not-in-households is fixed throughout the forecast period. For ages 75–85+, the proportion of the population not-in-households is recorded. Therefore, the population not-in-households for ages 75–85+ varies across the forecast period depending on the size of the population.

Vacancy Rate

The relationship between households and dwellings is modelled using a 'vacancy rate', sourced from the 2011 Census. The vacancy rate is calculated using statistics on households (occupied, second homes and vacant) and dwellings (shared and unshared).

Vacancy rates that have been applied for each of the TGSE areas are presented in the table below. The vacancy rates have been fixed throughout the forecast period. Using this vacancy rates, the 'dwelling requirement' of each household growth trajectory has been evaluated.

Table 4.1   Vacancy Rates (Source: 2011 Census)

Area	Vacancy Rate
Basildon	1.7%
Castle Point	3.3%
Rochford	2.6%
Southend-on-Sea	5.0%
Thurrock	2.4%

Labour Force & Jobs

Apart from in the **jobs-led** scenarios, the labour force and jobs implications of the population growth trajectory are evaluated through the application of three key data items: economic activity rates, an unemployment rate and a commuting ratio.

Economic Activity Rates

Edge Analytics Economic Activity Rates Assumptions

The level of labour force participation is recorded in the economic activity rates. Economic activity rates by five year age group (ages 16-74) and sex have been derived from 2001 and 2011 Census statistics. The 2011 Census statistics include an open-ended 65+ age categorisation, so economic activity rates for the 65–69 and 70–74 age groups have been estimated using a combination of Census 2011 tables, disaggregated using evidence from the 2001 Census.

Rates of economic activity in all five TGSE areas increased for women in all age groups between the 2001 and 2011 Censuses and in the older age groups for men

In all scenarios, Edge Analytics has made changes to the age-sex specific economic activity rates to take account of changes to the State Pension Age (SPA) and to accommodate potential changes in economic participation which might result from an ageing but healthier population in the older labour force age-groups.

The SPA for women is increasing from 60 to 65 by 2018, bringing it in line with that for men. Between December 2018 and April 2020, the SPA for both men and women will then rise to 66. Under current legislation, the SPA will be increased to 67 between 2034 and 2036 and 68 between 2044 and 2046. It has been proposed that the rise in the SPA to 67 is brought forward to 2026–2028[203].

ONS published its last set of economic activity rate forecasts from a 2006 base[204]. These incorporated an increase in SPA for women to 65 by 2020 but this has since been altered to an accelerated transition by 2018 plus a further extension to 66 by 2020. Over the 2011–2020 period, the ONS forecasts suggested that male economic activity rates would rise by 5.6% and 11.9% in the 60-64 and 65-69 age groups respectively. Corresponding female rates would rise by 33.4% and 16.3%

Figure 4.3   ONS Labour Force Projection 2006 – Economic Activity Rates 2011-2020 (source: ONS)

Age Sex	16-24	25-34	35-44	45-59	60-64	65-69	70-74
% Change 2011 - 2020							
Males	-3.1%	-0.8%	-0.7%	0.3%	5.6%	11.9%	-5.6%
Females	-1.2%	1.8%	0.4%	3.9%	33.4%	16.3%	0.0%

[203] https://www.gov.uk/changes-state-pension
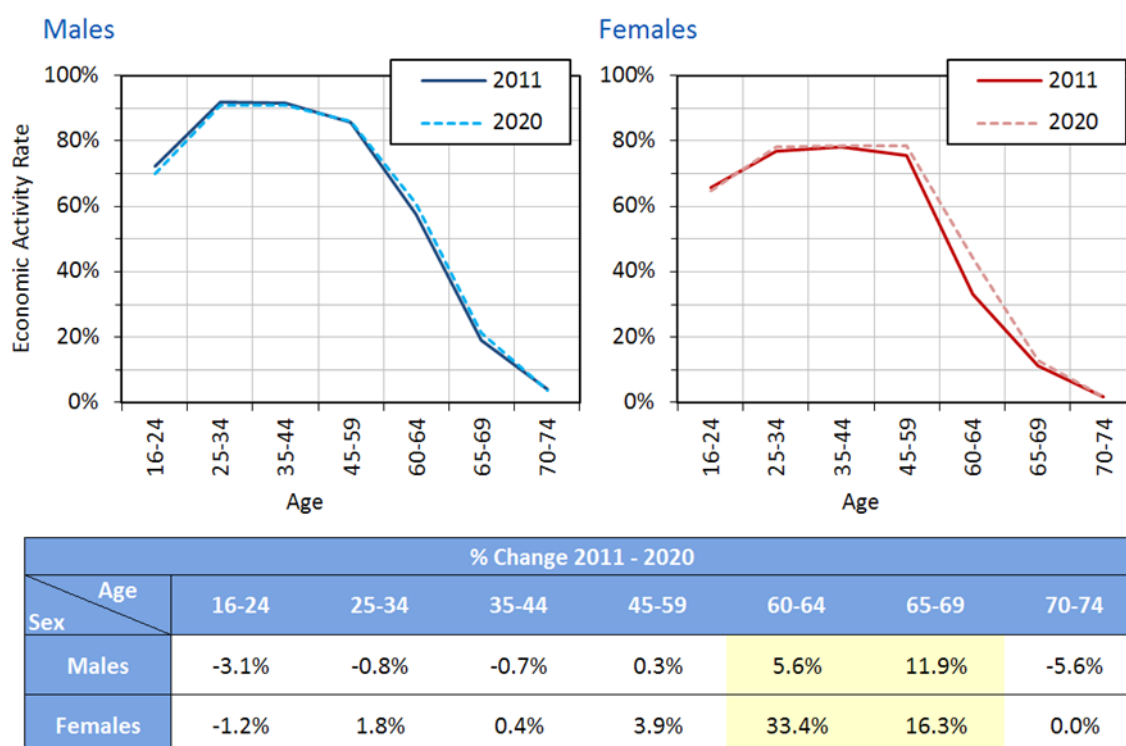
[204] ONS January 2006, Projections of the UK labour force, 2006 to 2020 http://www.ons.gov.uk/ons/rel/lms/labour-market-trends--discontinued-/volume-114--no--1/projections-of-the-uk-labour-force--2006-to-2020.pdf

To take account of planned changes to the SPA, the following modifications have been made to the Edge Analytics economic activity rates:

- Women aged 60–64: 40% increase from 2011 to 2020.

- Women aged 65–69: 20% increase from 2011 to 2020.

- Men aged 60–64: 5% increase from 2011 to 2020.

- Men aged 65–69: 10% increase from 2011 to 2020

Note that the rates for women in the 60–64 age and 65–69 age-groups are higher than the original ONS figures, accounting for the accelerated pace of change in the SPA. No changes have been applied to other age-groups. In addition, no changes have been applied to economic activity rates beyond 2020. This is an appropriately prudent approach given the uncertainty associated with forecasting future rates of economic participation.

Given the accelerated pace of change in the female SPA and the clear trends for increased female labour force participation across all age-groups in the last decade, these 2011–2020 rate increases would appear to be relatively conservative assumptions.

Figure 4.4   Edge Analytics economic activity rate profiles for Basildon 2011 and 2020 comparison
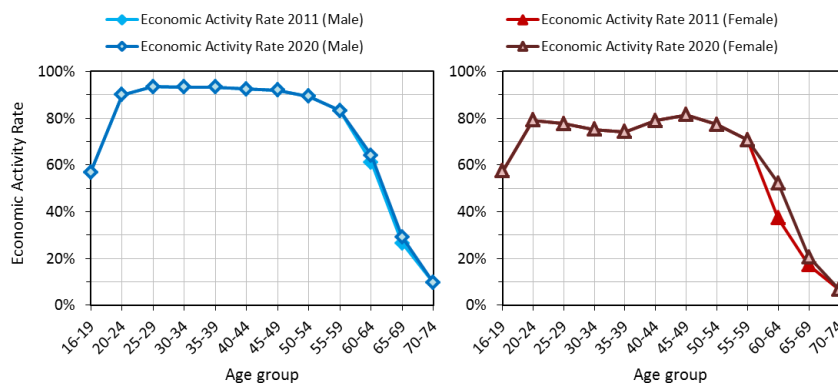
Figure 4.5   Edge Analytics economic activity rate profiles for Castle Point 2011 and 2020 comparison
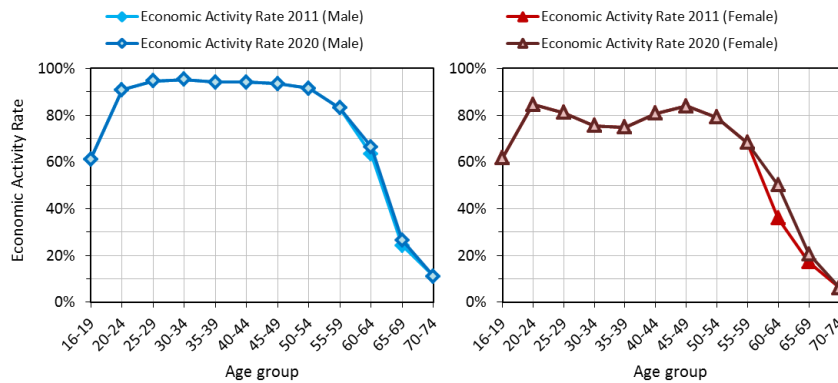
Figure 4.6   Edge Analytics economic activity rate profiles for Rochford 2011 and 2020 comparison
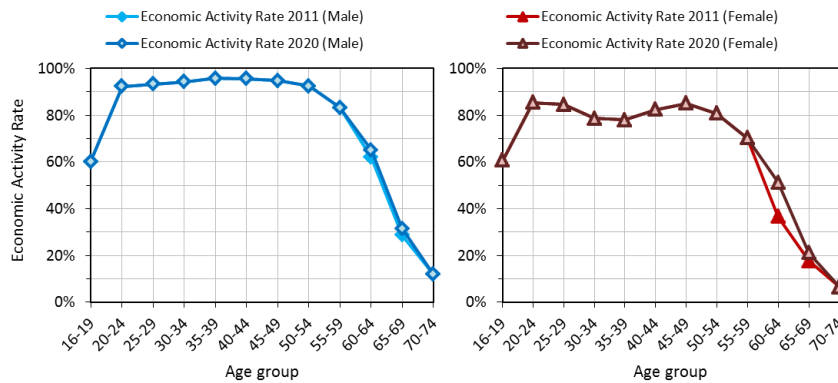
Figure 4.7   Edge Analytics economic activity rate profiles for Southend-end-Sea 2011 and 2020 comparison
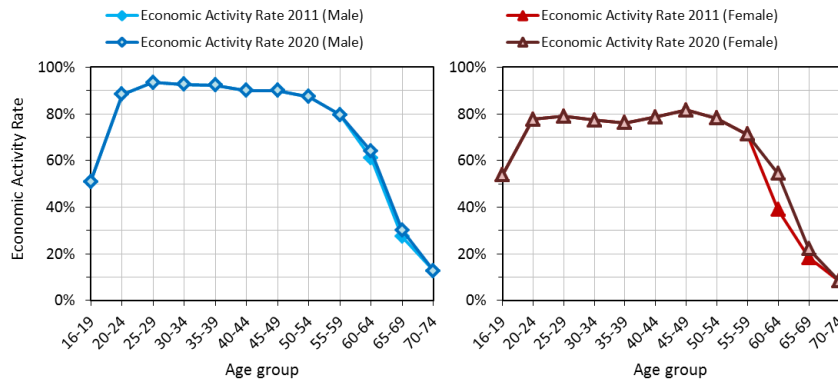
Figure 4.8   Edge Analytics economic activity rate profiles for Thurrock 2011 and 2020 comparison
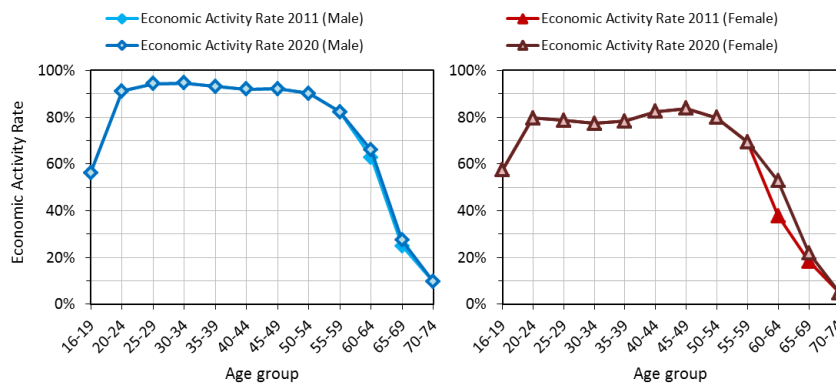
OBR Economic Activity Rates Assumptions

As an alternative to Edge Analytics' assumptions on economic activity rates, adjustments to economic activity rates amongst older age cohorts (60 – 74) to align with forecasts by the Office for Budgetary Responsibility (OBR), as detailed in Appendix 3. The following adjustments have been applied over the period from 2011 to 2031 in scenarios labelled **OBR** or **OBRadj**.

Table 4.2   OBR Age-Specific Employment Rate Forecasts 2011 – 2031

	Male	Female
60 – 64	17.0%	71.0%
65 – 69	39.0%	93.0%
70 – 74	20.0%	83.0%

Source: OBR, 2014

EEFM-derived Economic Activity Rates Assumptions

As a further alternative to the Edge Analytics assumptions on economic activity rates and the OBR adjustments, in the **EEFM Employed People - EEFM** scenarios, economic activity rates have been derived directly from the EEFM. This was done in an attempt to achieve better alignment between the EEFM and the POPGROUP model in order to illustrate the implications of the different labour-force adjustments compared to those input in POPGROUP. These EEFM rates record the change in economic activity in the 16–74 year-old population that are implied by EEFM's jobs growth forecasts.

The degree to which the underlying economic activity rates change over the EEFM forecast period is illustrated below.

Table 4.3   EEFM-derived economic activity rates

Area	Economic Activity Rate (16–74)			Change (2011–2031) (pp)
	2011	2014	2031	
Basildon	69.4%	72.8%	73.4%	4.03
Castle Point	66.5%	66.7%	72.8%	6.27
Rochford	69.1%	69.4%	71.7%	2.57
Southend-on-Sea	69.0%	69.6%	72.2%	3.12
Thurrock	71.6%	71.9%	75.3%	3.71

Experian-derived Economic Activity Rates Assumptions

As an alternative to the Edge Analytics assumptions on economic activity rates, in the **Exp WorkEmp – EXP** scenario, economic activity rates have been derived directly from the Experian forecast output. This was done in an attempt to achieve better alignment between the Experian and the POPGROUP models in order to illustrate the implications of the different labour-force adjustments compared to those input in POPGROUP. These Experian-derived rates record the change in economic activity in the 16–64 and 65+ year-old population that are implied by Experian jobs growth forecasts.

The degree to which the underlying economic activity rates change over the Experian forecast period is illustrated below.

Figure 4.9   Experian-derived economic activity rates

Rochford

Southend-on-Sea

Thurrock
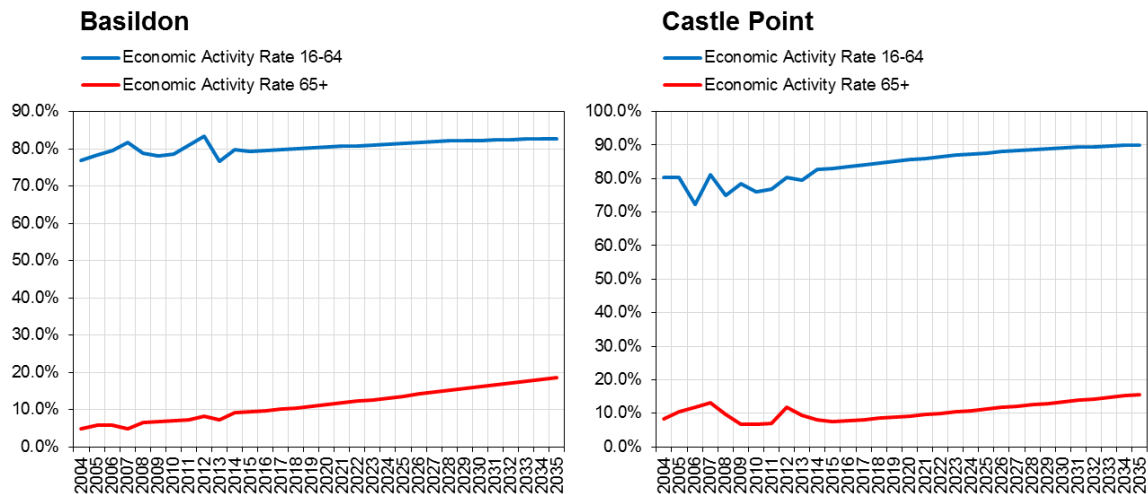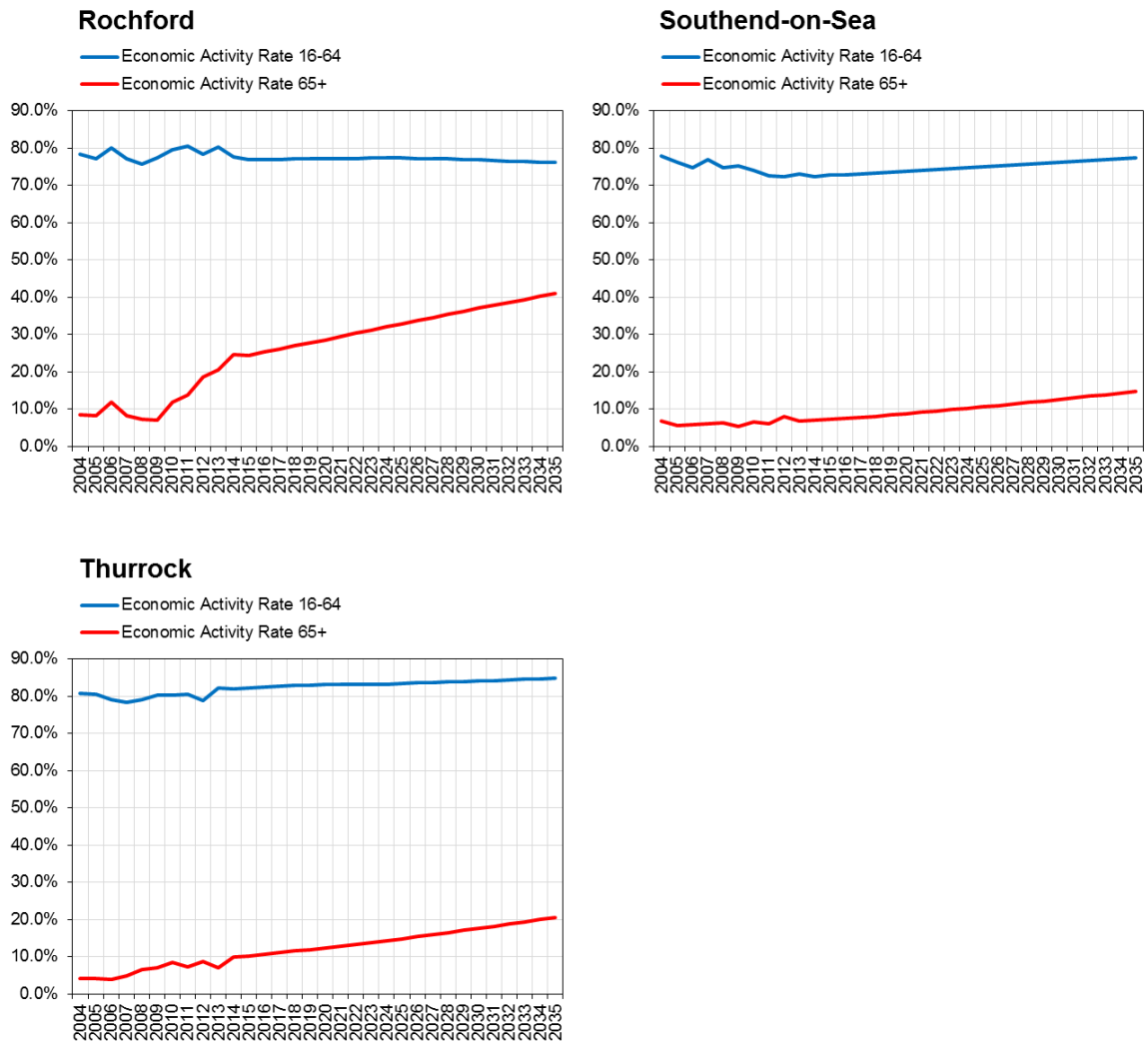
Commuting Ratio

The commuting ratio, together with the unemployment rate, controls the balance between the number of workers living in a district (i.e. the resident labour force) and the number of jobs available in the district.

A commuting ratio greater than 1.00 indicates that the size of the resident workforce exceeds the number of jobs available in the district, resulting in a net out-commute. A commuting ratio less than 1.00 indicates that the number of jobs in the district exceeds the size of the labour force, resulting in a net in-commute.

Edge Analytics Commuting Ratio

Edge Analytics has derived commuting ratios from the 2011 Census 'Travel to Work' statistics published by ONS in July 2014. Tables below show the 2011 Census commuting ratios for each of the TGSE areas and compare them against the 2001 Census values. The 2011 Census commuting ratios have been fixed throughout the forecast period.

Table 4.4   Basildon 2001 and 2011 Census Commuting Ratio Comparison

Basildon		2001 Census	2011 Census
Workers	a	77,771	83,006
Jobs	b	76,703	82,827
Commuting Ratio	**a/b**	**1.01**	**1.00**

Note: 2001 data from Census Table *T101 – UK Travel Flows* ; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age* .

Table 4.5   Castle Point 2001 and 2011 Census Commuting Ratio Comparison

Castle Point		2001 Census	2011 Census
Workers	a	41,045	41,443
Jobs	b	21,633	25,391
Commuting Ratio	**a/b**	**1.90**	**1.63**

Note: 2001 data from Census Table *T101 – UK Travel Flows* ; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age* .

Table 4.6   Rochford 2001 and 2011 Census Commuting Ratio Comparison

Rochford		2001 Census	2011 Census
Workers	a	37,749	40,662
Jobs	b	22,905	26,665
Commuting Ratio	**a/b**	**1.65**	**1.52**

Note: 2001 data from Census Table *T101 – UK Travel Flows* ; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age* .

Table 4.7   Southend-on-Sea 2001 and 2011 Census Commuting Ratio Comparison

Southend-on-Sea		2001 Census	2011 Census
Workers	a	70,099	81,339
Jobs	b	63,209	72,096
Commuting Ratio	**a/b**	**1.11**	**1.13**

Note: 2001 data from Census Table *T101 – UK Travel Flows* ; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age* .

Table 4.8   Thurrock 2001 and 2011 Census Commuting Ratio Comparison

Thurrock		2001 Census	2011 Census
Workers	a	69,448	77,420
Jobs	b	57,320	64,211
Commuting Ratio	**a/b**	**1.21**	**1.21**

Note: 2001 data from Census Table *T101 – UK Travel Flows*; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age*.

EEFM-derived Commuting Ratios

As an alternative to the Edge Analytics assumptions on commuting, in the **EEFM Employed People - EEFM** scenario, commuting ratios have been derived directly from the EEFM. In 2011, the EEFM derived commuting ratio is directly comparable with the 2011 Census commuting ratio for each of the TGSE areas. However, in subsequent years, the commuting ratio varies to accommodate anticipated jobs growth. The degree to which the underlying commuting ratios change over the EEFM forecast period is illustrated below.

Table 4.9   EEFM-derived Commuting Ratios

Area	Commuting Ratios			Change (2011–2031)
	2011	2014	2031	
Basildon	1.00	0.99	1.00	0.00
Castle Point	1.63	1.41	1.49	-0.14
Rochford	1.53	1.43	1.46	-0.06
Southend-on-Sea	1.13	1.07	1.08	-0.05
Thurrock	1.21	1.22	1.16	-0.05

Experian-derived Commuting Ratios

As an alternative to the Edge Analytics assumptions on commuting, in the **Exp WorkEmp – EXP** scenario, commuting ratios have been derived directly from the Experian forecast output. The degree to which the underlying commuting ratios change over the Experian forecast period is illustrated below.

Table 4.10   Experian-derived Commuting Ratios

Area Name	Commuting Ratio			Change (2011–2035)
	2011	2014	2035	
Basildon	0.99	0.94	0.99	0.00
Castle Point	1.66	1.69	1.81	0.15
Rochford	1.49	1.45	1.55	0.06
Southend-on-Sea	0.95	0.90	0.95	0.00
Thurrock	1.15	1.14	1.19	0.04

Unemployment Rate

The unemployment rate, together with the commuting ratio, controls the balance between the size of the labour force and the number of jobs available within an area.

Edge Analytics Unemployment Rates

In all scenarios, historical unemployment rates are the ONS modelled unemployment rates. They have been defined until 2014. From 2014, the unemployment rates reduce to a pre-recession (2004-2007) average by 2020 and remains fixed thereafter.

Table 4.11   ONS modelled unemployment rates

Area Name	Unemployment Rate											Av. Pre-recession (2004-2007)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Basildon	4.3%	4.7%	4.9%	4.2%	5.3%	7.7%	8.0%	7.7%	7.8%	8.1%	6.3%	4.5%
Castle Point	3.1%	3.4%	4.0%	3.6%	4.3%	6.9%	6.8%	7.0%	7.3%	6.1%	5.5%	3.5%
Rochford	3.0%	3.2%	3.6%	3.7%	3.8%	5.3%	4.6%	5.1%	5.4%	5.1%	4.4%	3.4%
Southend-on-Sea	5.2%	5.1%	5.8%	5.7%	5.8%	7.4%	7.5%	8.3%	7.7%	7.2%	7.5%	5.5%
Thurrock	3.9%	4.5%	5.0%	4.3%	5.8%	7.8%	8.2%	9.2%	8.3%	7.3%	6.6%	4.4%

EEFM-derived Unemployment Rates

As an alternative to the Edge Analytics assumptions on unemployment, in the **EEFM Employed People - EEFM** scenario, unemployment rates have been derived directly from the EEFM. The degree to which the underlying unemployment rates change over the EEFM forecast period is illustrated below.

Table 4.12   EEFM-derived Unemployment Rates

Area	Unemployment Rates			Change (2011–2031) (pp)
	2011	2014	2031	
Basildon	4.9%	3.4%	2.7%	-2.17
Castle Point	3.6%	2.2%	2.1%	-1.52
Rochford	2.6%	1.5%	1.6%	-1.02
Southend-on-Sea	5.8%	3.8%	3.4%	-2.40
Thurrock	5.2%	3.5%	2.6%	-2.66

Experian-derived Unemployment Rates

As an alternative to the Edge Analytics assumptions on unemployment, in the **Exp WorkEmp – EXP** scenario, unemployment rates have been derived directly from the Experian forecast output. The degree to which the underlying unemployment rates change over the Experian forecast period is illustrated below.

Table 4.13   Experian-derived Unemployment Rates

Area Name	Unemployment Rate			Change (2011–2035) (pp)
	2011	2014	2035	
Basildon	7.5%	6.2%	5.1%	-2.38
Castle Point	7.0%	5.0%	4.8%	-2.20
Rochford	5.1%	4.3%	3.4%	-1.64
Southend-on-Sea	8.4%	7.3%	6.8%	-1.58
Thurrock	8.8%	6.5%	6.0%	-2.88

Appendix 5: Headship Rates by Age Band

The 2012-based sub-national household projections (SNHP) convert the projected population into households through the application of household representative rates, or headship rates. These rates show the propensity of an individual to be a household representative.

The following charts show 2012 headship rates for different five year age bands in each local authority, with the vertical axis showing the likelihood of an individual being a household representative and the horizontal axis showing how this is projected to change over the period to 2037. Historic data is also shown, alongside national headship rates.

Basildon and England: DCLG 2012-based Headship Rates
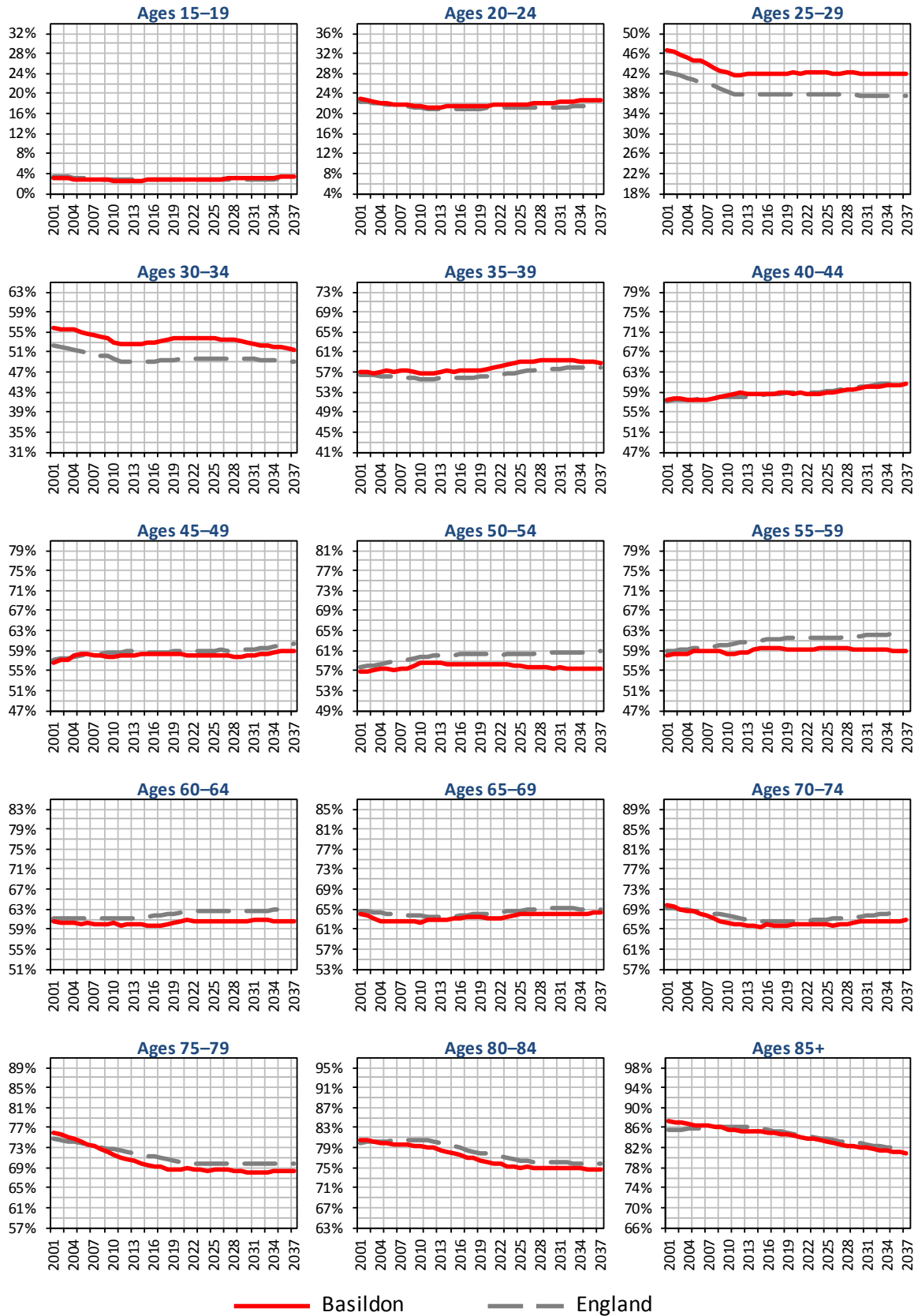
Castle Point and England: DCLG 2012-based Headship Rates

Ages 15–19

Ages 20–24

Ages 25–29

Ages 30–34

Ages 35–39

Ages 40–44

Ages 45–49

Ages 50–54

Ages 55–59

Ages 60–64

Ages 65–69

Ages 70–74

Ages 75–79

Ages 80–84

Ages 85+

Castle Point — — — England
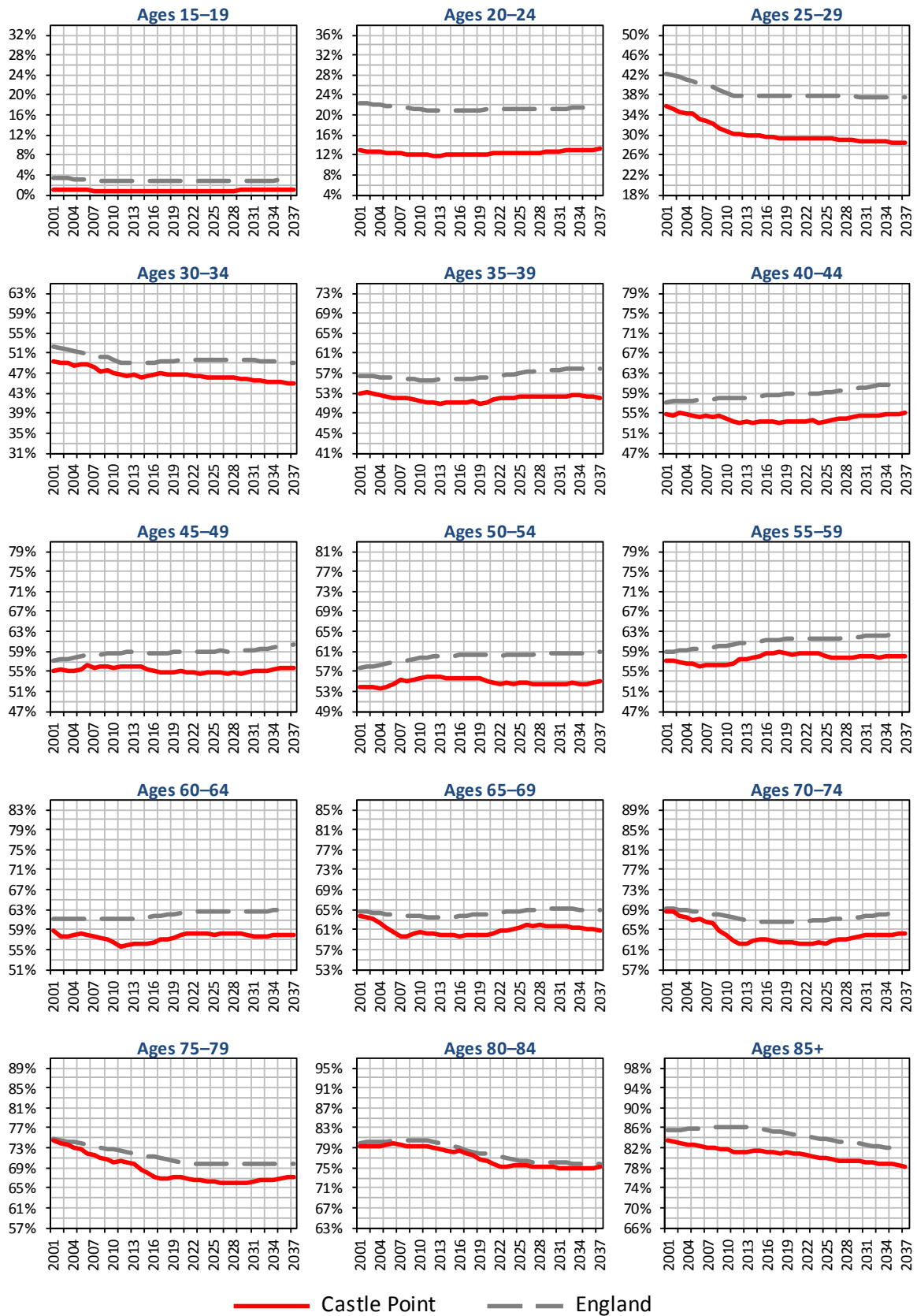
Rochford and England: DCLG 2012-based Headship Rates

Ages 15–19 · Ages 20–24 · Ages 25–29 · Ages 30–34 · Ages 35–39 · Ages 40–44 · Ages 45–49 · Ages 50–54 · Ages 55–59 · Ages 60–64 · Ages 65–69 · Ages 70–74 · Ages 75–79 · Ages 80–84 · Ages 85+

Rochford ——— England – – –
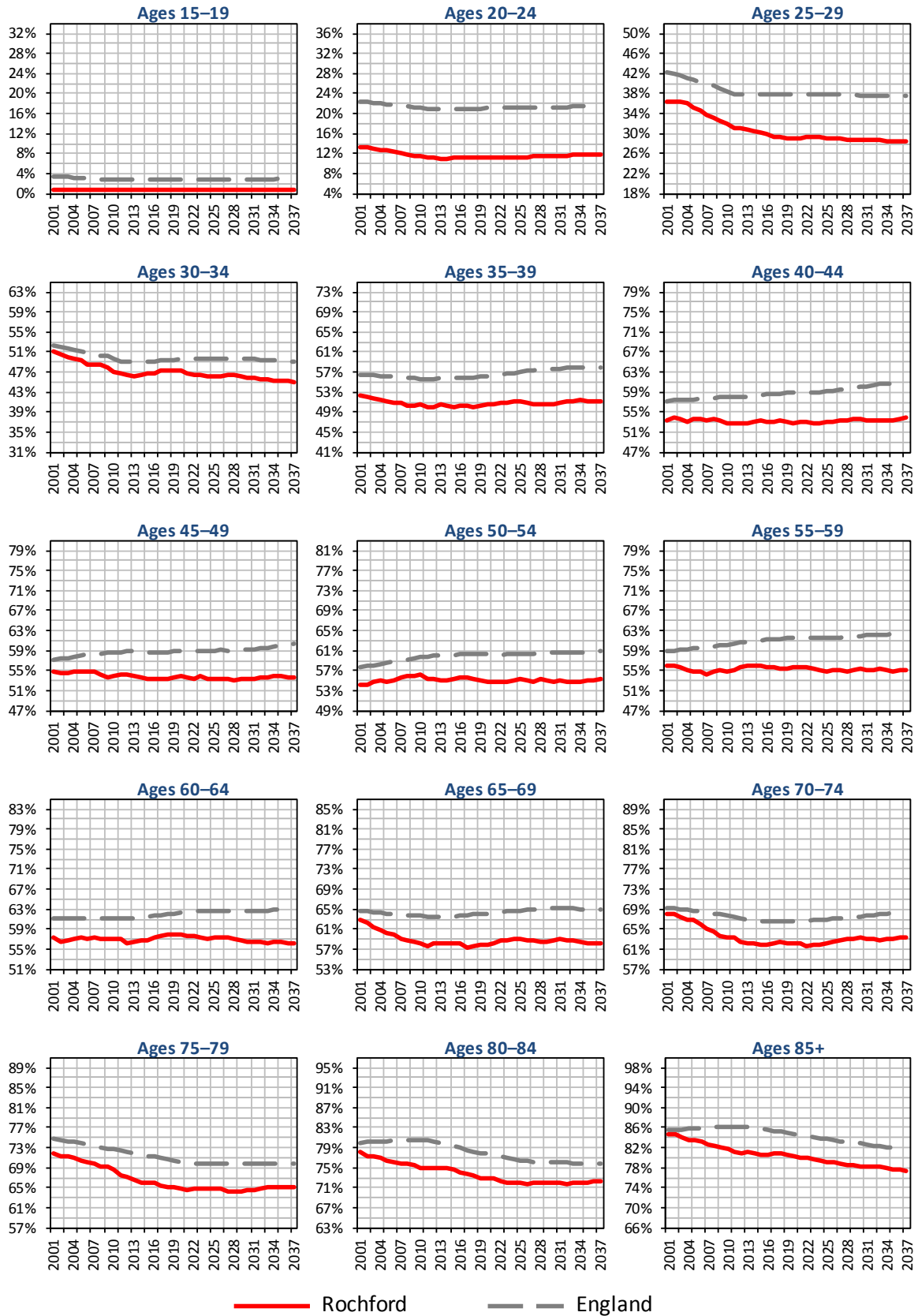
Southend-on-Sea and England: DCLG 2012-based Headship Rates

Ages 15–19 | Ages 20–24 | Ages 25–29 | Ages 30–34 | Ages 35–39 | Ages 40–44 | Ages 45–49 | Ages 50–54 | Ages 55–59 | Ages 60–64 | Ages 65–69 | Ages 70–74 | Ages 75–79 | Ages 80–84 | Ages 85+

Southend-on-Sea —— England —— ——
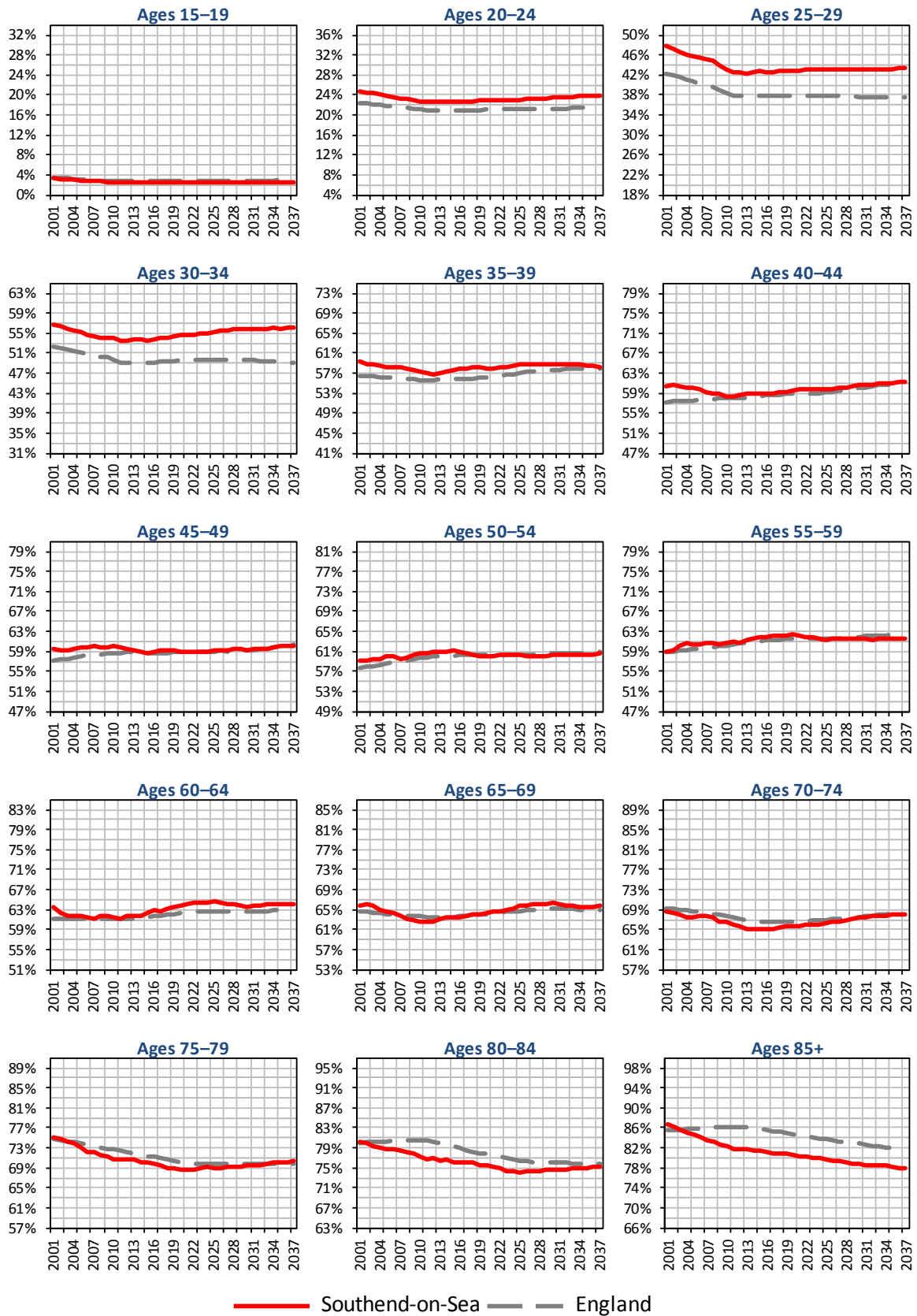
Thurrock and England: DCLG 2012-based Headship Rates

Ages 15–19 · Ages 20–24 · Ages 25–29 · Ages 30–34 · Ages 35–39 · Ages 40–44 · Ages 45–49 · Ages 50–54 · Ages 55–59 · Ages 60–64 · Ages 65–69 · Ages 70–74 · Ages 75–79 · Ages 80–84 · Ages 85+

Thurrock — England
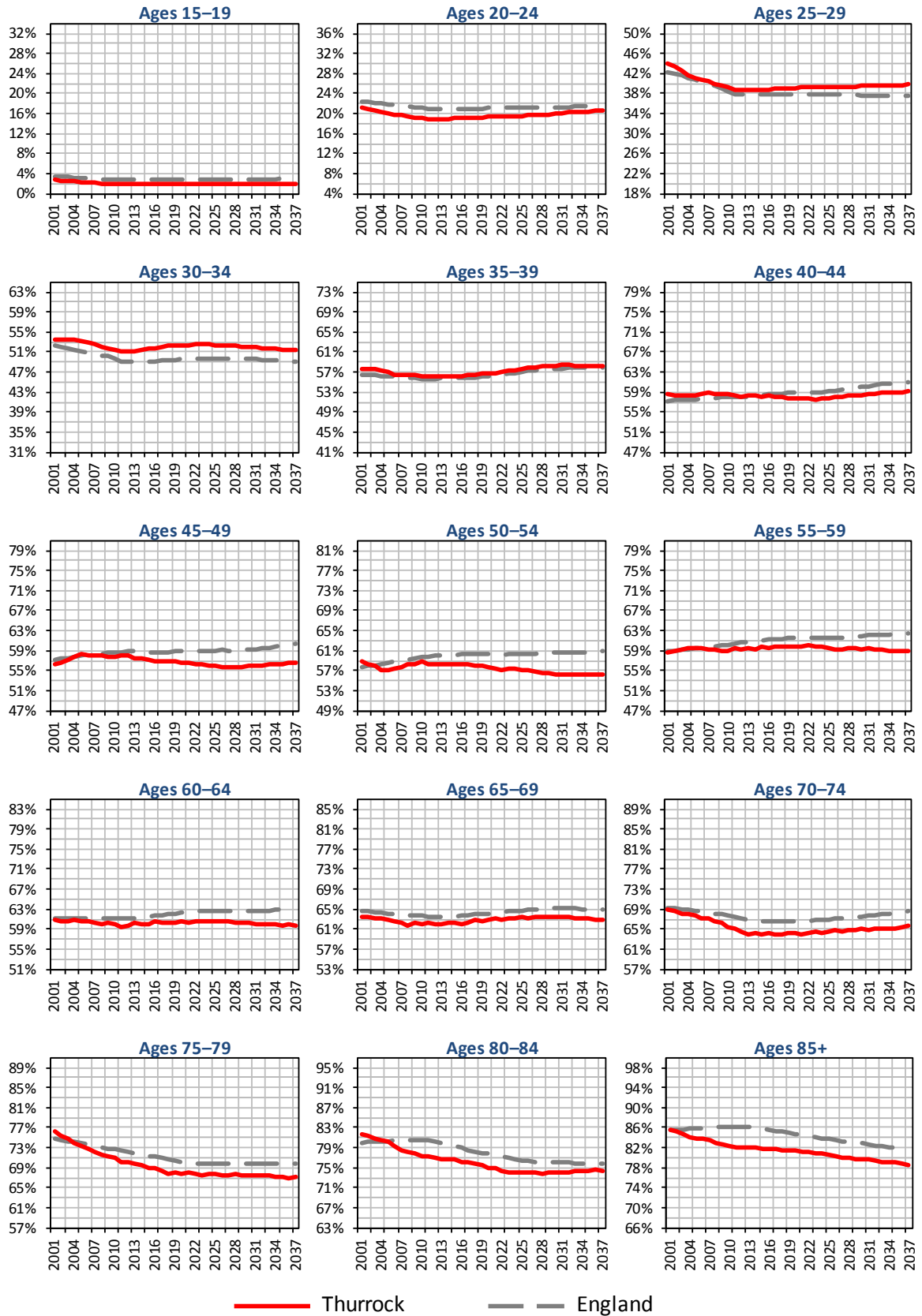
Appendix 6: Needs for Different Types of Housing – Authority Tables

Current Housing Trends

As stated in section 7, it is important to understand the key housing trends and characteristics of different groups, including families, younger people and the older population.

Age Profile

The current tenure split of households, based on the age of HRP, within each of the TGSE authorities is set out in the following tables.

Figure 6.1   Tenure by Age of HRP in Basildon 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented or living rent free
16 to 34	3.5%	39.1%	30.8%	26.6%
35 to 49	8.3%	59.0%	20.2%	12.6%
50 to 64	34.1%	41.4%	18.2%	6.4%
65 and over	65.5%	8.5%	22.1%	3.9%
All ages	**28.9%**	**38.0%**	**22.0%**	**11.1%**

Source: Census 2011

Figure 6.2   Tenure by Age of HRP in Castle Point 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented or living rent free
16 to 34	4.9%	50.6%	6.3%	38.3%
35 to 49	9.8%	68.4%	6.0%	15.9%
50 to 64	43.2%	45.4%	4.5%	7.0%
65 and over	80.4%	9.3%	5.3%	5.0%
All ages	**43.1%**	**39.8%**	**5.3%**	**11.8%**

Source: Census 2011

Figure 6.3   Tenure by Age of HRP in Rochford 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented or living rent free
16 to 34	4.5%	54.2%	9.1%	32.2%
35 to 49	10.1%	72.2%	6.1%	11.6%
50 to 64	43.9%	44.7%	5.8%	5.6%
65 and over	78.3%	7.8%	10.1%	3.8%
All ages	**41.5%**	**41.6%**	**7.6%**	**9.3%**

Source: Census 2011

Figure 6.4   Tenure by Age of HRP in Southend-on-Sea 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented or living rent free
16 to 34	3.4%	33.6%	11.7%	51.3%
35 to 49	8.4%	54.3%	11.1%	26.2%
50 to 64	33.4%	40.3%	11.2%	15.1%
65 and over	69.5%	9.0%	12.2%	9.4%
All ages	**30.7%**	**34.8%**	**11.5%**	**22.9%**

Source: Census 2011

Figure 6.5   Tenure by Age of HRP in Thurrock 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented or living rent free
16 to 34	2.7%	42.4%	19.4%	35.4%
35 to 49	7.2%	61.3%	15.9%	15.6%
50 to 64	33.8%	41.8%	17.0%	7.4%
65 and over	64.2%	7.9%	23.3%	4.7%
All ages	**25.5%**	**41.2%**	**18.4%**	**14.9%**

Source: Census 2011

Household Types

The following tables show the size of property occupied by different household typologies within each of the TGSE authorities.

Figure 6.6   Number of Bedrooms by Household Type in Basildon 2011

	Bedrooms				
Household Composition	**1**	**2**	**3**	**4**	**5+**
One person	31%	32%	30%	7%	1%
One family all aged 65+	6%	26%	46%	19%	2%
Married/same-sex civil partnership couple with no children	5%	22%	45%	24%	3%
Married/same-sex civil partnership couple with dependent children	1%	12%	48%	32%	7%
Married/same-sex civil partnership couple with non-dependent children	0%	11%	50%	34%	6%
Cohabiting couple with no children	18%	38%	33%	10%	1%
Cohabiting couple with dependent children	4%	29%	50%	15%	3%
Cohabiting couple with non-dependent children	1%	16%	59%	22%	2%
Lone parent with dependent children	5%	32%	49%	12%	2%
Lone parent with non-dependent children	3%	27%	54%	14%	2%
Other household types	4%	22%	46%	21%	7%
All categories	**12%**	**25%**	**42%**	**18%**	**3%**

Source: Census 2011

Figure 6.7   Number of Bedrooms by Household Type in Castle Point 2011

Household Composition	Bedrooms				
	1	2	3	4	5+
One person	24%	41%	28%	6%	1%
One family all aged 65+	8%	39%	39%	14%	1%
Married/same-sex civil partnership couple with no children	5%	26%	43%	22%	3%
Married/same-sex civil partnership couple with dependent children	1%	9%	48%	37%	6%
Married/same-sex civil partnership couple with non-dependent children	1%	11%	50%	33%	6%
Cohabiting couple with no children	15%	38%	35%	11%	1%
Cohabiting couple with dependent children	3%	22%	51%	20%	4%
Cohabiting couple with non-dependent children	3%	22%	46%	27%	2%
Lone parent with dependent children	5%	29%	49%	14%	2%
Lone parent with non-dependent children	3%	30%	50%	15%	2%
Other household types	3%	19%	40%	28%	10%
All categories	**9%**	**28%**	**40%**	**19%**	**3%**

Source: Census 2011

Figure 6.8   Number of Bedrooms by Household Type in Rochford 2011

Household Composition	Bedrooms				
	1	2	3	4	5+
One person	24%	38%	30%	7%	1%
One family all aged 65+	6%	34%	42%	17%	2%
Married/same-sex civil partnership couple with no children	4%	24%	44%	25%	4%
Married/same-sex civil partnership couple with dependent children	0%	8%	46%	37%	8%
Married/same-sex civil partnership couple with non-dependent children	1%	11%	49%	33%	6%
Cohabiting couple with no children	13%	37%	38%	11%	1%
Cohabiting couple with dependent children	3%	26%	48%	20%	4%
Cohabiting couple with non-dependent children	3%	19%	48%	26%	4%
Lone parent with dependent children	4%	32%	45%	16%	3%
Lone parent with non-dependent children	2%	31%	49%	15%	2%
Other household types	3%	19%	40%	26%	12%
All categories	**8%**	**26%**	**41%**	**21%**	**4%**

Source: Census 2011

Figure 6.9   Number of Bedrooms by Household Type in Southend-on-Sea 2011

Household Composition	Bedrooms				
	1	2	3	4	5+
One person	38%	34%	22%	5%	1%
One family all aged 65+	9%	35%	39%	15%	2%
Married/same-sex civil partnership couple with no children	9%	28%	42%	18%	4%
Married/same-sex civil partnership couple with dependent children	2%	14%	49%	27%	8%
Married/same-sex civil partnership couple with non-dependent children	1%	14%	51%	28%	6%
Cohabiting couple with no children	26%	40%	27%	6%	1%
Cohabiting couple with dependent children	6%	32%	46%	14%	3%
Cohabiting couple with non-dependent children	3%	25%	51%	17%	4%
Lone parent with dependent children	6%	40%	41%	11%	2%
Lone parent with non-dependent children	5%	35%	46%	12%	2%
Other household types	8%	29%	37%	17%	8%
All categories	**17%**	**30%**	**36%**	**13%**	**4%**

Source: Census 2011

Figure 6.10   Number of Bedrooms by Household Type in Thurrock 2011

Household Composition	Bedrooms				
	1	2	3	4	5+
One person	31%	21%	23%	2%	1%
One family all aged 65+	6%	16%	39%	6%	1%
Married/same-sex civil partnership couple with no children	7%	23%	50%	11%	2%
Married/same-sex civil partnership couple with dependent children	2%	16%	60%	21%	5%
Married/same-sex civil partnership couple with non-dependent children	1%	11%	76%	21%	4%
Cohabiting couple with no children	19%	31%	27%	3%	1%
Cohabiting couple with dependent children	4%	32%	55%	10%	2%
Cohabiting couple with non-dependent children	1%	20%	76%	12%	2%
Lone parent with dependent children	5%	34%	47%	7%	1%
Lone parent with non-dependent children	3%	19%	48%	8%	1%
Other household types	6%	21%	43%	14%	5%
All categories	**12%**	**22%**	**41%**	**9%**	**2%**

Source: Census 2011

The following tables show the tenure of property occupied by different household typologies within each of the TGSE authorities.

Figure 6.11   Tenure by Household Type in Basildon 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented	Living rent free
One person	34%	22%	30%	11%	2%
One family all aged 65+	78%	8%	12%	1%	1%
Married/same-sex civil partnership couple with no children	41%	44%	9%	5%	0%
Married/same-sex civil partnership couple with dependent children	9%	72%	12%	7%	0%
Married/same-sex civil partnership couple with non-dependent children	38%	48%	12%	2%	0%
Cohabiting couple with no children	12%	55%	13%	20%	1%
Cohabiting couple with dependent children	3%	47%	33%	16%	0%
Cohabiting couple with non-dependent children	20%	48%	26%	5%	1%
Lone parent with dependent children	5%	25%	47%	23%	1%
Lone parent with non-dependent children	32%	30%	31%	7%	0%
Other household types	21%	41%	19%	18%	1%
All categories	**29%**	**38%**	**22%**	**10%**	**1%**

Source: Census 2011

Figure 6.12 Tenure by Household Type in Castle Point 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented	Living rent free
One person	56%	20%	9%	12%	2%
One family all aged 65+	87%	8%	2%	2%	1%
Married/same-sex civil partnership couple with no children	52%	41%	2%	4%	0%
Married/same-sex civil partnership couple with dependent children	10%	80%	3%	7%	0%
Married/same-sex civil partnership couple with non-dependent children	44%	50%	3%	2%	0%
Cohabiting couple with no children	20%	58%	2%	20%	1%
Cohabiting couple with dependent children	6%	60%	6%	27%	1%
Cohabiting couple with non-dependent children	20%	64%	8%	7%	1%
Lone parent with dependent children	7%	35%	13%	44%	1%
Lone parent with non-dependent children	49%	32%	8%	10%	1%
Other household types	29%	49%	5%	15%	1%
All categories	**43%**	**40%**	**5%**	**11%**	**1%**

Source: Census 2011

Figure 6.13   Tenure by Household Type in Rochford 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented	Living rent free
One person	55%	20%	14%	9%	2%
One family all aged 65+	86%	7%	5%	1%	1%
Married/same-sex civil partnership couple with no children	50%	43%	3%	4%	0%
Married/same-sex civil partnership couple with dependent children	11%	80%	3%	6%	0%
Married/same-sex civil partnership couple with non-dependent children	46%	48%	3%	2%	0%
Cohabiting couple with no children	18%	57%	4%	20%	1%
Cohabiting couple with dependent children	6%	60%	11%	21%	1%
Cohabiting couple with non-dependent children	22%	59%	9%	9%	0%
Lone parent with dependent children	8%	37%	22%	32%	1%
Lone parent with non-dependent children	51%	30%	12%	6%	0%
Other household types	30%	49%	7%	13%	1%
All categories	**41%**	**42%**	**8%**	**8%**	**1%**

Source: Census 2011

Figure 6.14   Tenure by Household Type in Southend-on-Sea 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented	Living rent free
One person	38%	21%	17%	24%	1%
One family all aged 65+	81%	9%	5%	4%	1%
Married/same-sex civil partnership couple with no children	41%	43%	5%	11%	1%
Married/same-sex civil partnership couple with dependent children	9%	69%	7%	15%	0%
Married/same-sex civil partnership couple with non-dependent children	41%	46%	7%	6%	0%
Cohabiting couple with no children	12%	47%	5%	35%	1%
Cohabiting couple with dependent children	5%	46%	13%	36%	0%
Cohabiting couple with non-dependent children	25%	47%	13%	14%	0%
Lone parent with dependent children	6%	24%	23%	47%	1%
Lone parent with non-dependent children	36%	29%	18%	17%	1%
Other household types	19%	34%	8%	37%	1%
All categories	**31%**	**35%**	**12%**	**22%**	**1%**

Source: Census 2011

Figure 6.15 Tenure by Household Type in Thurrock 2011

	Owned outright	Owned with mortgage, loan or shared ownership	Social rented	Private rented	Living rent free
One person	32%	26%	26%	13%	2%
One family all aged 65+	79%	6%	13%	2%	1%
Married/same-sex civil partnership couple with no children	39%	44%	9%	7%	0%
Married/same-sex civil partnership couple with dependent children	7%	72%	10%	10%	0%
Married/same-sex civil partnership couple with non-dependent children	38%	48%	11%	3%	0%
Cohabiting couple with no children	10%	54%	9%	27%	1%
Cohabiting couple with dependent children	3%	52%	24%	20%	0%
Cohabiting couple with non-dependent children	17%	49%	26%	7%	1%
Lone parent with dependent children	5%	24%	38%	32%	1%
Lone parent with non-dependent children	33%	31%	26%	9%	1%
Other household types	17%	41%	14%	27%	1%
All categories	**25%**	**41%**	**18%**	**14%**	**1%**

Source: Census 2011

Appendix 7: Affordable Housing Need by Size of Property

In section 6, Figure 6.14 considers the size of affordable housing needed across TGSE. This assessment is replicated in this appendix for each local authority, based on data provided by the Councils with secondary data where necessary.

Figures presented may not sum due to rounding, but provide an indicative estimate of the scale of need for different sizes of affordable housing.

Figure 7.1   Affordable Housing Need by Size – Basildon

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 1 – Current Housing Need						
1.1	Existing affordable housing tenants in need	171	198	35	22	**426**
1.2	Other groups on Housing Register	296	172	15	11	**494**
1.3	**Total current housing need (gross) (1.1 + 1.2)**	**467**	**370**	**50**	**33**	**920**
Stage 2 – Affordable Housing Supply						
2.1	Affordable dwellings occupied by households in need	171	198	35	22	**426**
2.2	Surplus stock	6	1	0	0	**7**
2.3	Committed supply of new affordable housing	56	99	50	15	**220**
2.4	Units to be taken out of management	69	70	96	13	**247**
2.5	**Total affordable housing stock available (2.1 + 2.2 + 2.3 – 2.4)**	**164**	**229**	**-11**	**-24**	**406**
Stage 3 – Historically Accumulated 'Backlog' Need (net annual)						
3.1	**Shortfall in affordable housing to meet current 'backlog' need (1.5 – 2.5 / 5)**	**61**	**28**	**12**	**2**	**103**
	%	59%	27%	12%	2%	–

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 4 – Future Housing Need (annual)						
4.2	Number of newly forming households unable to rent in the open market	182	158	199	33	**571**
4.3	Existing households falling into need	244	37	61	11	**353**
4.4	**Total newly arising need (4.2 + 4.3)**	**425**	**195**	**260**	**43**	**924**
Stage 5 – Affordable Housing Supply						
5.1	Lettings excluding transfers	496	99	110	14	**720**
5.2	Annual supply of shared ownership units available for sub-market sale	2	11	24	15	**53**
5.3	**Annual supply of affordable housing (5.2 + 5.2)**	**498**	**110**	**135**	**29**	**773**
Stage 6 – Annual Net New Need						
6.1	**Annual net new need (4.4 – 5.3)**	**-73**	**85**	**126**	**14**	**152**
	%	-48%	56%	83%	9%	–
Stage 7 – Total Affordable Housing Need (net annual)						
7.1	Shortfall in affordable housing to meet current 'backlog' need (3.1)	61	28	12	2	**103**
7.2	Annual net new need (6.1)	-73	85	126	14	**152**
7.3	**Net annual affordable housing need (3.1 + 6.1)**	**-12**	**113**	**138**	**16**	**254**
	%	-5%	44%	54%	6%	–

Figure 7.2   Affordable Housing Need by Size – Castle Point

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 1 – Current Housing Need						
1.1	Existing affordable housing tenants in need	81	47	10	7	**145**
1.2	Other groups on Housing Register	234	95	77	11	**417**
1.3	**Total current housing need (gross) (1.1 + 1.2)**	**315**	**142**	**87**	**18**	**562**
Stage 2 – Affordable Housing Supply						
2.1	Affordable dwellings occupied by households in need	81	47	10	7	**145**
2.2	Surplus stock	2	3	1	0	**6**
2.3	Committed supply of new affordable housing	27	57	15	0	**99**
2.4	Units to be taken out of management	0	0	0	0	**0**
2.5	**Total affordable housing stock available (2.1 + 2.2 + 2.3 – 2.4)**	**110**	**107**	**26**	**7**	**250**
Stage 3 – Historically Accumulated 'Backlog' Need (net annual)						
3.1	**Shortfall in affordable housing to meet current 'backlog' need (1.5 – 2.5 / 5)**	**41**	**7**	**12**	**2**	**62**
	%	66%	11%	19%	3%	–

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 4 – Future Housing Need (annual)						
4.2	Number of newly forming households unable to rent in the open market	87	62	80	5	**233**
4.3	Existing households falling into need	51	26	21	4	**103**
4.4	**Total newly arising need (4.2 + 4.3)**	**137**	**88**	**101**	**9**	**336**
Stage 5 – Affordable Housing Supply						
5.1	Lettings excluding transfers	37	27	35	2	**101**
5.2	Annual supply of shared ownership units available for sub-market sale	0	0	0	0	**0**
5.3	**Annual supply of affordable housing (5.2 + 5.2)**	**37**	**27**	**35**	**2**	**101**
Stage 6 – Annual Net New Need						
6.1	**Annual net new need (4.4 – 5.3)**	**100**	**62**	**67**	**7**	**236**
	%	42%	26%	28%	3%	–
Stage 7 – Total Affordable Housing Need (net annual)						
7.1	Shortfall in affordable housing to meet current 'backlog' need (3.1)	41	7	12	2	**62**
7.2	Annual net new need (6.1)	100	62	67	7	**236**
7.3	**Net annual affordable housing need (3.1 + 6.1)**	**141**	**69**	**79**	**9**	**298**
	%	47%	23%	26%	3%	–

Figure 7.3   Affordable Housing Need by Size – Rochford

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 1 – Current Housing Need						
1.1	Existing affordable housing tenants in need	49	25	24	2	**100**
1.2	Other groups on Housing Register	220	177	51	7	**455**
1.3	**Total current housing need (gross) (1.1 + 1.2)**	**269**	**202**	**75**	**9**	**555**
Stage 2 – Affordable Housing Supply						
2.1	Affordable dwellings occupied by households in need	49	25	24	2	**100**
2.2	Surplus stock	0	0	0	0	**0**
2.3	Committed supply of new affordable housing	38	42	77	4	**161**
2.4	Units to be taken out of management	0	0	0	0	**0**
2.5	**Total affordable housing stock available (2.1 + 2.2 + 2.3 – 2.4)**	**87**	**67**	**101**	**6**	**261**
Stage 3 – Historically Accumulated 'Backlog' Need (net annual)						
3.1	**Shortfall in affordable housing to meet current 'backlog' need (1.5 – 2.5 / 5)**	**36**	**27**	**-5**	**1**	**59**
	%	61%	46%	-8%	2%	**–**

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 4 – Future Housing Need (annual)						
4.2	Number of newly forming households unable to rent in the open market	103	54	56	5	**217**
4.3	Existing households falling into need	70	40	12	2	**125**
4.4	**Total newly arising need (4.2 + 4.3)**	**173**	**94**	**69**	**7**	342
Stage 5 – Affordable Housing Supply						
5.1	Lettings excluding transfers	67	48	14	3	**132**
5.2	Annual supply of shared ownership units available for sub-market sale	0	0	0	0	**0**
5.3	**Annual supply of affordable housing (5.2 + 5.2)**	**67**	**48**	**14**	**3**	132
Stage 6 – Annual Net New Need						
6.1	**Annual net new need (4.4 – 5.3)**	**106**	**46**	**54**	**4**	210
	%	50%	22%	26%	2%	–
Stage 7 – Total Affordable Housing Need (net annual)						
7.1	Shortfall in affordable housing to meet current 'backlog' need (3.1)	36	27	-5	1	**59**
7.2	Annual net new need (6.1)	106	46	54	4	**210**
7.3	**Net annual affordable housing need (3.1 + 6.1)**	**142**	**73**	**49**	**4**	268
	%	53%	27%	18%	2%	–

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Figure 7.4   Affordable Housing Need by Size – Southend-on-Sea

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 1 – Current Housing Need						
1.1	Existing affordable housing tenants in need	161	100	87	18	**366**
1.2	Other groups on Housing Register	347	240	147	22	**756**
1.3	**Total current housing need (gross) (1.1 + 1.2)**	**508**	**340**	**234**	**40**	**1,122**
Stage 2 – Affordable Housing Supply						
2.1	Affordable dwellings occupied by households in need	161	100	87	18	**366**
2.2	Surplus stock	11	2	2	0	**15**
2.3	Committed supply of new affordable housing	140	134	67	14	**355**
2.4	Units to be taken out of management	0	0	0	0	**0**
2.5	**Total affordable housing stock available (2.1 + 2.2 + 2.3 – 2.4)**	**312**	**236**	**156**	**32**	**736**
Stage 3 – Historically Accumulated 'Backlog' Need (net annual)						
3.1	**Shortfall in affordable housing to meet current 'backlog' need (1.5 – 2.5 / 5)**	**39**	**21**	**16**	**2**	**77**
	%	51%	27%	21%	3%	–

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 4 – Future Housing Need (annual)						
4.2	Number of newly forming households unable to rent in the open market	224	128	136	23	**511**
4.3	Existing households falling into need	289	123	81	7	**500**
4.4	**Total newly arising need (4.2 + 4.3)**	**514**	**250**	**217**	**30**	**1,011**
Stage 5 – Affordable Housing Supply						
5.1	Lettings excluding transfers	261	95	64	4	**425**
5.2	Annual supply of shared ownership units available for sub-market sale	1	3	6	3	**13**
5.3	**Annual supply of affordable housing (5.2 + 5.2)**	**262**	**98**	**70**	**8**	**438**
Stage 6 – Annual Net New Need						
6.1	**Annual net new need (4.4 – 5.3)**	**252**	**152**	**147**	**22**	**573**
	%	44%	27%	26%	4%	–
Stage 7 – Total Affordable Housing Need (net annual)						
7.1	Shortfall in affordable housing to meet current 'backlog' need (3.1)	39	21	16	2	**77**
7.2	Annual net new need (6.1)	252	152	147	22	**573**
7.3	**Net annual affordable housing need (3.1 + 6.1)**	**291**	**173**	**163**	**23**	**650**
	%	45%	27%	25%	4%	–

Figure 7.5   Affordable Housing Need by Size – Thurrock

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 1 – Current Housing Need						
1.1	Existing affordable housing tenants in need	181	123	36	8	**348**
1.2	Other groups on Housing Register	183	125	37	8	**353**
1.3	**Total current housing need (gross) (1.1 + 1.2)**	**364**	**247**	**73**	**16**	**701**
Stage 2 – Affordable Housing Supply						
2.1	Affordable dwellings occupied by households in need	181	123	36	8	**348**
2.2	Surplus stock	1	1	8	0	**10**
2.3	Committed supply of new affordable housing	133	463	570	131	**1,297**
2.4	Units to be taken out of management	0	0	0	0	**0**
2.5	**Total affordable housing stock available (2.1 + 2.2 + 2.3 – 2.4)**	**315**	**587**	**614**	**139**	**1,655**
Stage 3 – Historically Accumulated 'Backlog' Need (net annual)						
3.1	**Shortfall in affordable housing to meet current 'backlog' need (1.5 – 2.5 / 5)**	**10**	**-68**	**-108**	**-25**	**-191**
	%	-5%	36%	57%	13%	**–**

		1 bed	2 beds	3 beds	4+ beds	Total
Stage 4 – Future Housing Need (annual)						
4.2	Number of newly forming households unable to rent in the open market	180	160	259	20	**618**
4.3	Existing households falling into need	225	166	207	14	**612**
4.4	**Total newly arising need (4.2 + 4.3)**	**405**	**325**	**466**	**34**	**1,230**
Stage 5 – Affordable Housing Supply						
5.1	Lettings excluding transfers	227	167	208	14	**616**
5.2	Annual supply of shared ownership units available for sub-market sale	1	4	9	3	**16**
5.3	**Annual supply of affordable housing (5.2 + 5.2)**	**228**	**171**	**217**	**17**	**632**
Stage 6 – Annual Net New Need						
6.1	**Annual net new need (4.4 – 5.3)**	**177**	**155**	**249**	**17**	**597**
	%	30%	26%	42%	3%	–
Stage 7 – Total Affordable Housing Need (net annual)						
7.1	Shortfall in affordable housing to meet current 'backlog' need (3.1)	10	-68	-108	-25	**-191**
7.2	Annual net new need (6.1)	177	155	249	17	**597**
7.3	**Net annual affordable housing need (3.1 + 6.1)**	**187**	**87**	**140**	**-8**	**406**
	%	46%	21%	35%	-2%	–

Appendix 8: Phasing of Housing Need

	Lower end of OAN range **SNPP London**	Upper end of OAN range **Experian (People)**
TGSE		
2014 – 2019	17,550	13,558
2019 – 2024	18,502	21,446
2024 – 2029	15,413	20,148
2029 – 2037	23,791	30,958
2014 – 2037	**75,256**	**86,109**
Average per annum	3,272	3,744
Basildon		
2014 – 2019	4,115	3,459
2019 – 2024	4,263	4,893
2024 – 2029	3,551	4,390
2029 – 2037	5,620	6,515
2014 – 2037	**17,549**	**19,256**
Average per annum	763	837
Castle Point		
2014 – 2019	1,889	1,462
2019 – 2024	1,975	2,751
2024 – 2029	1,508	2,244
2029 – 2037	2,116	2,971
2014 – 2037	**7,487**	**9,428**
Average per annum	326	410
Rochford		
2014 – 2019	1,820	1,668
2019 – 2024	1,860	2,427
2024 – 2029	1,423	2,037
2029 – 2037	2,070	2,888
2014 – 2037	**7,173**	**9,020**
Average per annum	312	392

Southend-on-Sea		
2014 – 2019	5,024	3,708
2019 – 2024	5,330	6,296
2024 – 2029	4,520	6,237
2029 – 2037	7,035	9,791
2014 – 2037	**21,910**	**26,031**
Average per annum	953	1,132
Thurrock		
2014 – 2019	4,701	3,261
2019 – 2024	5,074	5,080
2024 – 2029	4,411	5,239
2029 – 2037	6,950	8,793
2014 – 2037	**21,136**	**22,373**
Average per annum	919	973

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