Leicester & Leicestershire Housing Requirements Project








Final Report

September 2011

GL HEARN

In association with

jg Consulting
Quality Specialist Research

Contents

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DATE	ORIGINATORS	APPROVED
16.09.11	Nick Ireland Planning Associate Director	Stuart Baillie Planning Associate Director

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Executive Summary

INTRODUCTION

1. GL Hearn (GLH) with Justin Gardner Consulting (JGC) were commissioned by local authority partners in Leicester and Leicestershire to develop an evidence base to support local communities and authorities in determining future housing requirements.

2. The project is set against the Coalition Government's stated intention to abolish Regional Spatial Strategies (RSS) and the housing targets set out within them. Instead individual local authorities will be responsible for determining housing requirements in their areas. Primary legislation is required for this change of policy which is being progressed through the Localism Bill which is currently working its way through Parliament.

3. The local authorities in Leicester and Leicestershire have all participated in the project to provide a common and consistent evidence base. The local authorities are however at different stages in the preparation of their Local Development Framework (LDF) Core Strategies Leicester City, Hinckley & Bosworth, Oadby & Wigston and Harborough have either adopted Core Strategies or in the case of Harborough a submitted Core Strategy. The housing requirements in these documents correspond with the RSS requirements. . The findings of the project are most relevant to those without adopted or submitted Core Strategies.

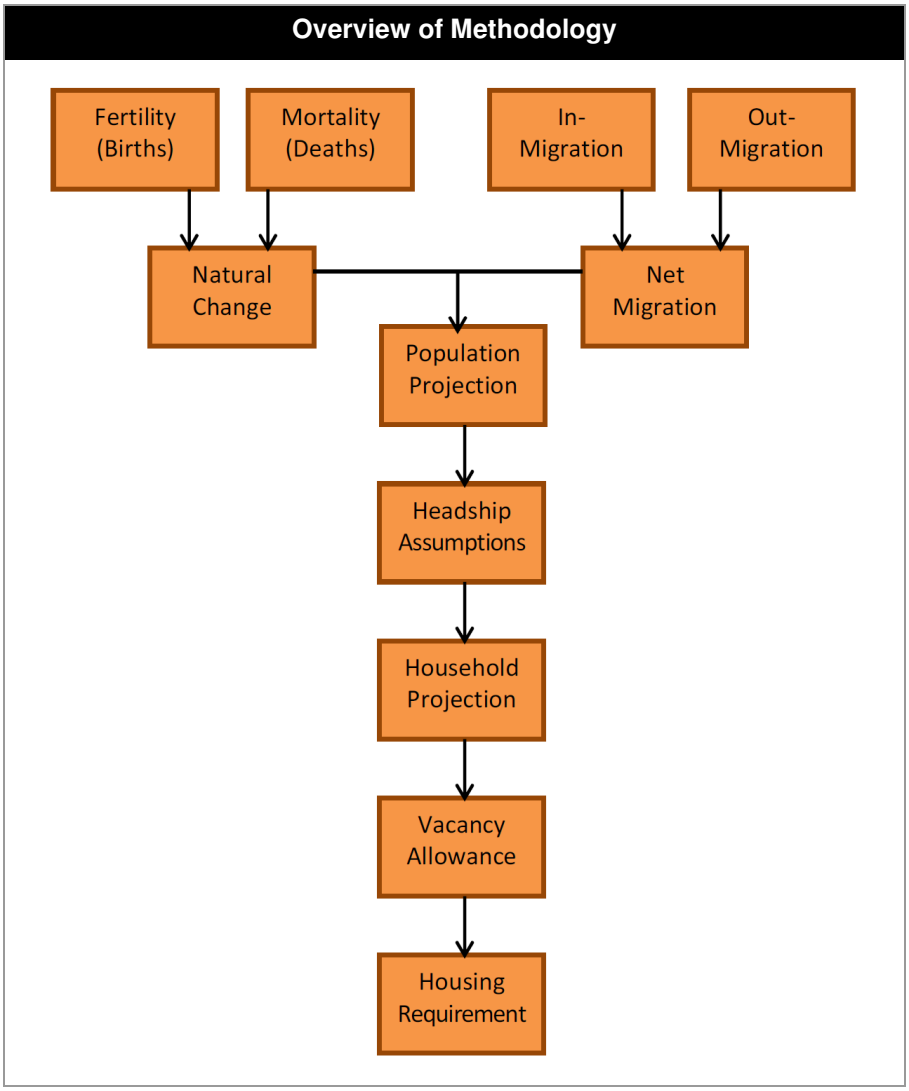
4. This project may inform and provide an evidence base for progression with LDF Core Strategies. Any decision, however, will depend on whether there remains scope and desire to introduce new housing evidence given the clear relationship with other aspects of the evidence base and the programme each local authority is following. This will be a decision for individual local planning authorities. In the longer-term it may inform the review of Core Strategies.

5. The approach adopted is based on interrogating demographic dynamics and assessing what level of migration the economy might be able to support. The different scenarios run are based on the requirements set out in the project brief. All projections have been run for each local authority area and in this summary we highlight figures for the whole of Leicester and Leicestershire (along with summary findings for each local authority). The structure of the projections is as follows:

- Main trend-based demographic projection (PROJ 1)
- Zero net-migration (PROJ 2)
- Zero employment growth (PROJ 3)
- 5% employment growth – 2006 to 2031 (PROJ 4)
- 10% employment growth – 2006 to 2031 (PROJ 5)
- Projection linked to past housing delivery (PROJ 6)

6. Where possible figures are also compared with the most recent projections published by ONS (population projections) and CLG (household projections). In each case the most recent data has a 2008-base.

7. The chart below sets out the broad methodology adopted. This begins by estimating the likely number of births and deaths to give a figure for the natural change in the population and also establishing in- and out-migration levels to estimate net migration. In all cases these are based on age and sex specific rates derived from ONS data. The natural change and net migration figures provide an estimate of population change to which headship rate assumptions are applied (the chances of a person in a particular age/sex group being a head of household) to provide household growth estimates. The final stage is to add a vacancy allowance to derive housing requirements.

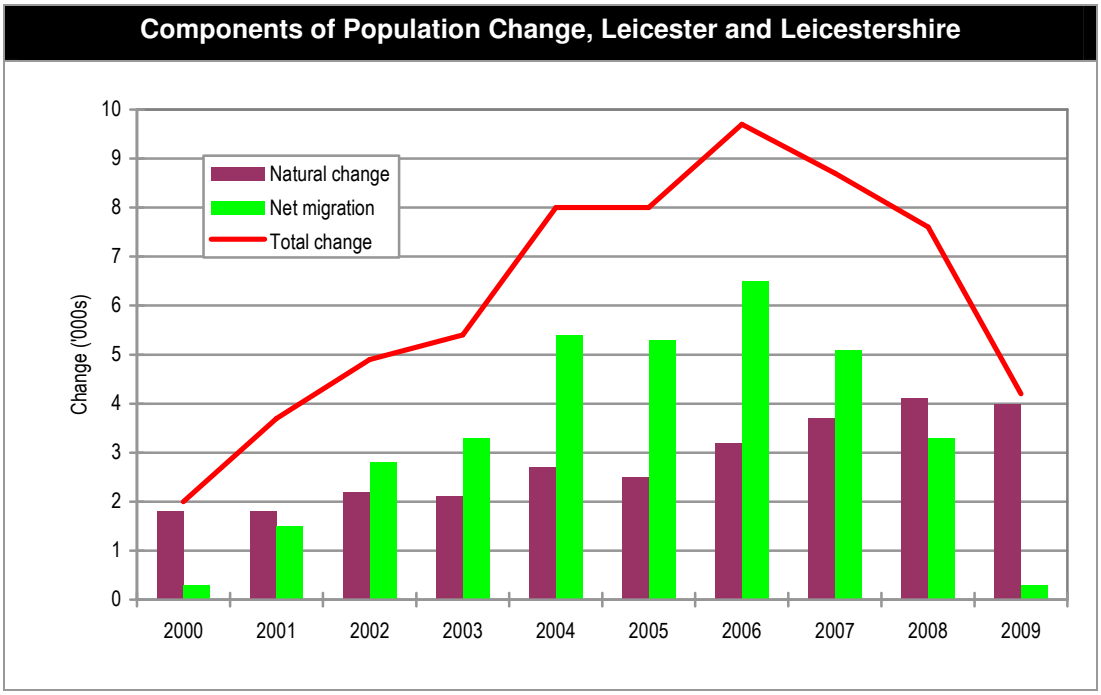


8. The various projections developed have principally been based on adjusting levels of in-migration.

UNDERSTANDING DEMOGRAPHIC DYNAMICS

9. Housing need and demand is driven by growth in the population and the changing structure and age of households. Changes in the size and make-up of the population are driven by three main components: birth rates, death rates and net migration, which is the balance between in-and out-migration to an area.

10. The figure below shows how important both natural change and migration have been as factors in population growth over the past ten years. In Leicester, natural change is the main driver of population growth with migration being the main driver in all other areas. Over the past ten years (2000 to 2009) it is estimated that the average level of net migration is 3,400 people per annum with natural change accounting for 2,800. Over this period the population of Leicester and Leicestershire grew by around 62,000 people.



Source: ONS Mid-Year Population Estimates

POPULATION PROJECTIONS

11. Our projections take a start point of mid-2006. It is estimated that there were 929,014 people living in Leicester and Leicestershire at this time. The table below shows the overall age structure of the population in broad age bands.

Population age structure (2006)		
Age band	Population	% of population
0-14	165,420	17.8%
15-29	196,206	21.1%
30-44	198,784	21.4%
45-59	180,625	19.4%
60-74	121,196	13.0%
75 and over	66,783	7.2%
Total	929,014	100.0%

Source: Derived from CLG 2008-based household projections

12. Trends in births (fertility) and deaths (mortality) in each of the eight local authority areas have been assessed and projected forward on the basis of past figures and the underlying assumptions used by ONS in their sub-national population projections. The key projected changes are that fertility will be fairly constant in each area in the future and at a level slightly below that estimated in 2008 whilst it is projected that life expectancy will improve into the future with better improvements for males and in areas that currently have lower life expectancy levels.

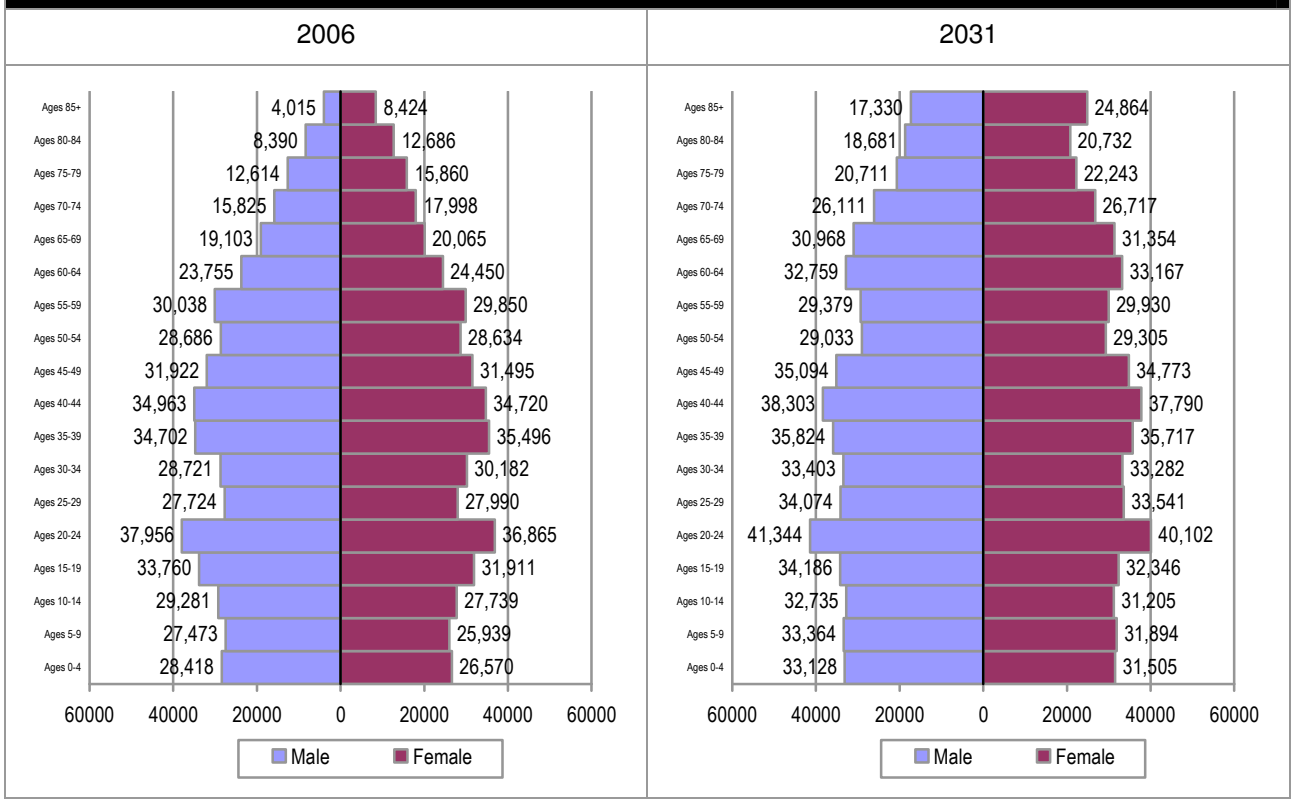
13. The final element of analysis for population projections was a study of migration patterns. Net migration levels have been variable in the past. The trend-based projections developed take an average of migration over the past ten years as a guide to future levels of net migration. This assumes an average annual level of net in-migration of around 3,400 people per annum. The age/sex profile of future migrants was informed by information in the ONS 2008-based population projections. The population projections developed are shown below:

Population Estimates 2006 to 2031 – Initial Scenarios – Leicester and Leicestershire						
	2006	2011	2016	2021	2026	2031
PROJ 1 (trend-based)	929,014 0.0%	964,737 3.8%	1,002,784 7.9%	1,042,384 12.2%	1,081,299 16.4%	1,116,895 20.2%
PROJ 2 (zero net-migration)	929,014 0.0%	957,977 3.1%	978,578 5.3%	999,261 7.6%	1,017,916 9.6%	1,032,533 11.1%
ONS 2008-Based	929,014 0.0%	970,900 4.5%	1,011,448 8.9%	1,052,672 13.3%	1,094,403 17.8%	1,130,798 21.7%

14. The table shows that under our main trend based projection (PROJ 1) there would be an increase in population over the 25-year period to 2031 of around 188,000 people – a 20% increase from 2006. The zero net-migration projections show a much lower population increase (of 11% over the 25-year period). The ONS projections show a slightly higher level of population growth to our main trend-based assumptions.

15. With an increase in the population there will also be a change in the demographic structure with a large increase in older persons. Between 2006 and 2031 the total population is expected to increase by 20%. However the population aged 60 and over is expected to rise by 63% whilst 87% growth is expected in the population aged 75 and over.

Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Leicester and Leicestershire



ECONOMIC DRIVEN POPULATION PROJECTIONS

16. With the change in demographic structure will come changes in the number of people who are working (as the population of people of working age changes). Estimates about how employment levels would change under each of our main projections have been developed. The demographic implications of different levels of employment growth have also been modelled separately. The broad methodology adopted is shown in the figure below.

Overview of Economic-Driven projection methodology

17. Employment rates in Leicester and Leicestershire have dropped over time (particularly since 2006) and the decline has been greater than seen elsewhere in the region or country. The modelling has assumed that there is a latent capacity within the labour force (i.e. potential to reduce unemployment and improve levels of economic participation amongst the population as the economy improves), and that thus as the economy recovers from the recession there is potential for employment rates to improve. Changes to pensionable age have also been included within the projections. However commuting patterns are assumed to remain constant.

18. The projections indicate that we would expect to see an 11.5% increase in people in employment in the main trend-based projection, based on past demographic trends, whilst with no net migration there would be a very small increase in employment (1.2% over 25-years).

Changes in number of people working 2006 to 2031 – Initial Scenarios – Leicester and Leicestershire						
	2006	2011	2016	2021	2026	2031
PROJ 1 (trend-based)	465,048 0.0%	464,674 -0.1%	492,482 5.9%	500,061 7.5%	508,485 9.3%	518,552 11.5%
PROJ 2 (zero net-migration)	465,048 0.0%	460,613 -1.0%	477,576 2.7%	474,157 2.0%	471,547 1.4%	470,400 1.2%

19. We also studied the population implications of increasing the number of people working under a number of different scenarios for employment growth:

- Zero employment growth (PROJ 3)
- 5% employment growth (over 25-years) (PROJ 4)
- 10% employment growth over 25-years (PROJ 5)

20. The required population increases to achieve these levels of economic growth are shown in the table below. The table shows that to achieve no change in employment would require the population to increase to 1,014,757 in 2031 whilst to achieve employment growth of 5% over 25-years would require an increase in population to about 1,057,000 (an increase from 2006 of 14%). The 10% employment growth scenario shows a population increase of 18%.

Population Estimates 2006 to 2031 – employment growth scenarios – Leicester and Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 3 (zero employment growth)	929,014 0.0%	957,024 3.0%	974,911 4.9%	991,914 6.8%	1,005,773 8.3%	1,014,757 9.2%
PROJ 4 (5% employment growth)	929,014 0.0%	960,349 3.4%	986,876 6.2%	1,013,401 9.1%	1,037,603 11.7%	1,057,404 13.8%
PROJ 5 (10% employment growth)	929,014 0.0%	963,674 3.7%	998,842 7.5%	1,034,888 11.4%	1,069,434 15.1%	1,100,051 18.4%

HOUSEHOLD (AND HOUSING) GROWTH PROJECTIONS

21. Having estimated the population size and the age/sex profile of the population the next step in the process is to convert this information in to estimates of the number of households in the study area. To do this we use the concept of headship rates. Headship rates can be described in their most simple terms as the number of people who are counted as heads of households.

22. Data from the 2008-based CLG household projections was used to establish headship rates and how these are projected to change over time. The final step in moving from households to housing numbers is to take account of vacant homes – a vacancy allowance of 2.5% to allow for turnover in new stock has been included.

23. The projections for Leicester and Leicestershire are shown in the tables below (one with annual figures and one with figures for the whole 25-year projection period). The table shows that under trend based assumptions there would be a requirement for around 4,500 additional homes to be provided per annum – this is slightly below CLG projections of just over 4,600 homes per annum.

24. To achieve no employment growth would require an additional 2,800 units to be provided each year with a figure of 4,200 for 10% employment growth.

25. A projection has also been developed based on past rates of housing development (net completions) over the last 10 years. If housing continued to be delivered at this rate, a population increase of around 4,700 per annum would result and only moderate employment growth of around 4% over the 25-year period.

Summary of projections 2006 to 2031 – annual – Leicester and Leicestershire

Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	7,515	0.8%	4,510	1.2%	2,140	0.5%
PROJ 2 (zero net-migration)	4,141	0.4%	3,144	0.8%	214	0.0%
PROJ 3 (zero employment growth)	3,430	0.4%	2,827	0.7%	0	0.0%
PROJ 4 (5% employment growth	5,136	0.6%	3,522	0.9%	930	0.2%
PROJ 5 (10% employment growth)	6,841	0.7%	4,216	1.1%	1,860	0.4%
PROJ 6 (past build rates)	4,733	0.5%	3,366	0.9%	714	0.2%
ONS/CLG projections	8,071	0.9%	4,629	1.2%	-	-

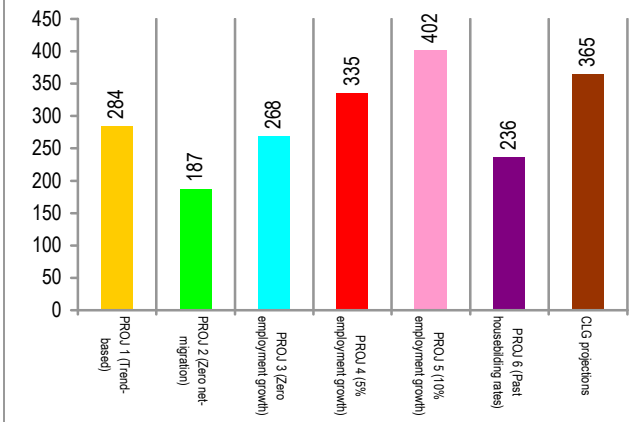
Summary of projections 2006 to 2031 – total – Leicester and Leicestershire						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	187,881	20.2%	112,738	29.4%	53,505	11.5%
PROJ 2 (zero net-migration)	103,519	11.1%	78,594	20.5%	5,352	1.2%
PROJ 3 (zero employment growth)	85,743	9.2%	70,682	18.4%	0	0.0%
PROJ 4 (5% employment growth	128,390	13.8%	88,043	22.9%	23,252	5.0%
PROJ 5 (10% employment growth)	171,037	18.4%	105,404	27.4%	46,505	10.0%
PROJ 6 (past build rates)	118,337	12.7%	84,150	21.9%	17,841	3.8%
ONS/CLG projections	201,784	21.7%	115,723	30.1%	-	-

LOCAL AUTHORITY SUMMARY PROJECTIONS

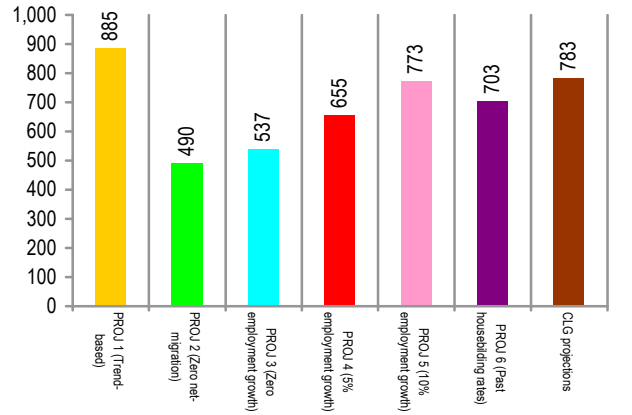
26. The charts below summarise the estimated housing requirement at a local level for each of the scenarios described above. The figures are all per annum.

Summary of housing requirements (2006-31) – per annum – by local authority

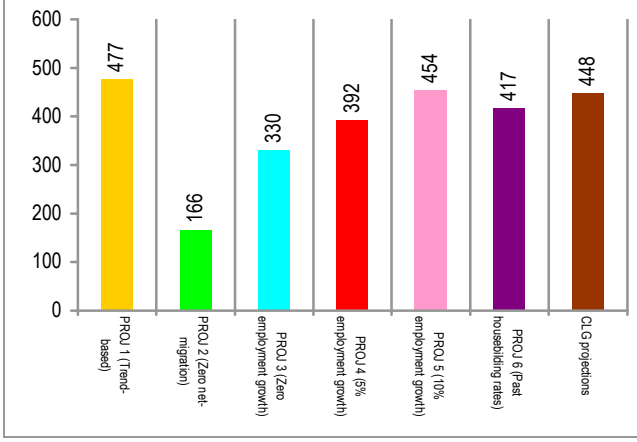
Blaby



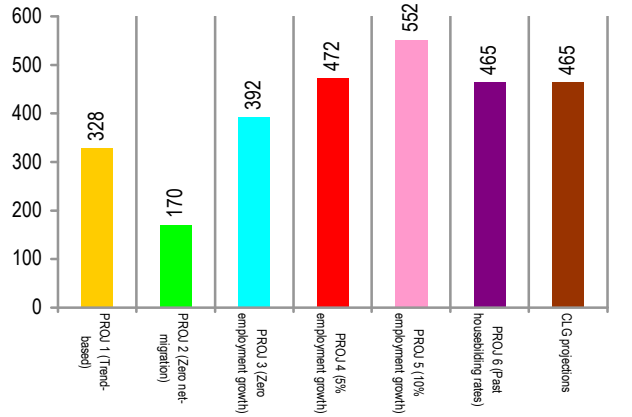
Charnwood



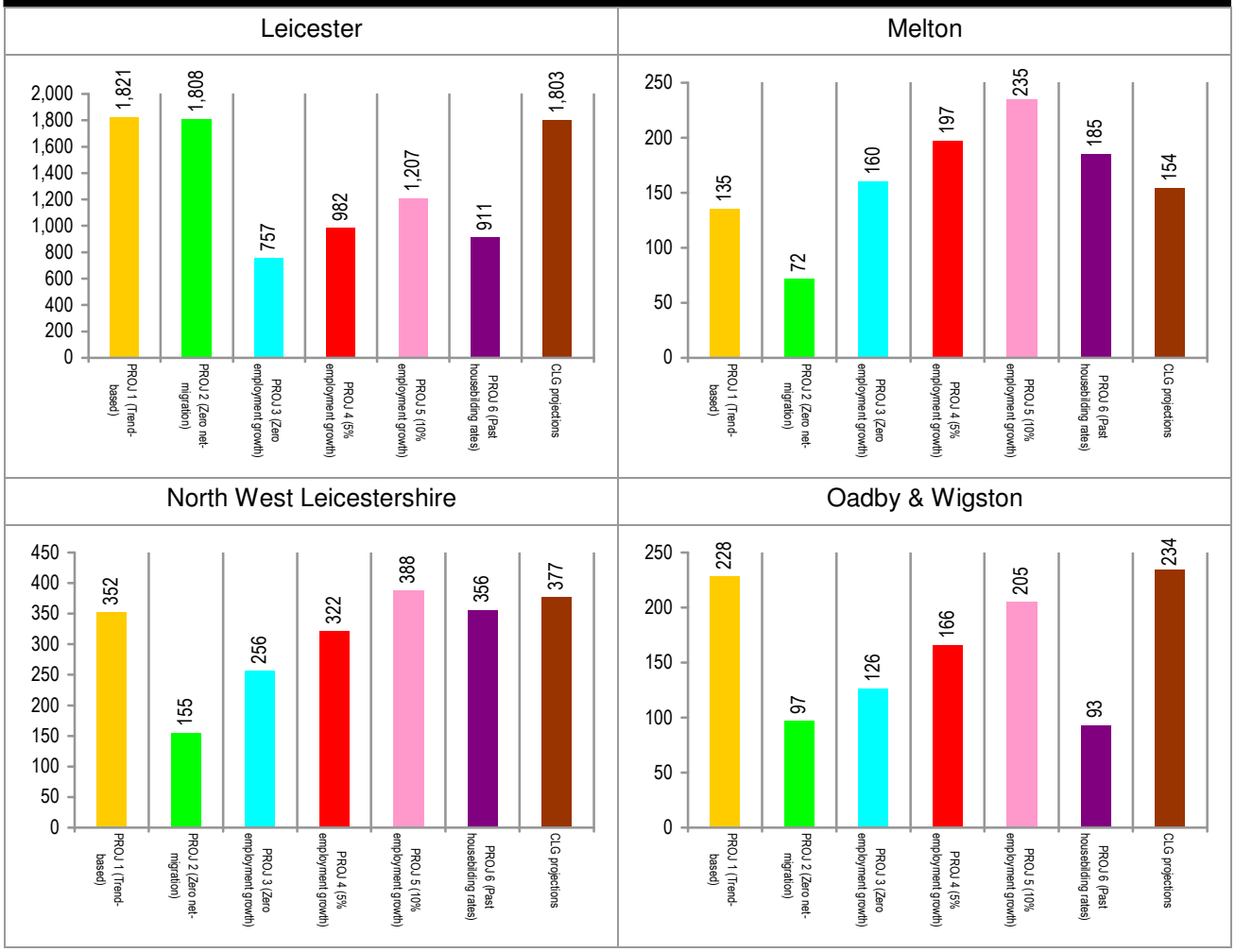
Harborough



Hinckley & Bosworth



Summary of housing requirements (2006-31) – per annum – by local authority (continued…)



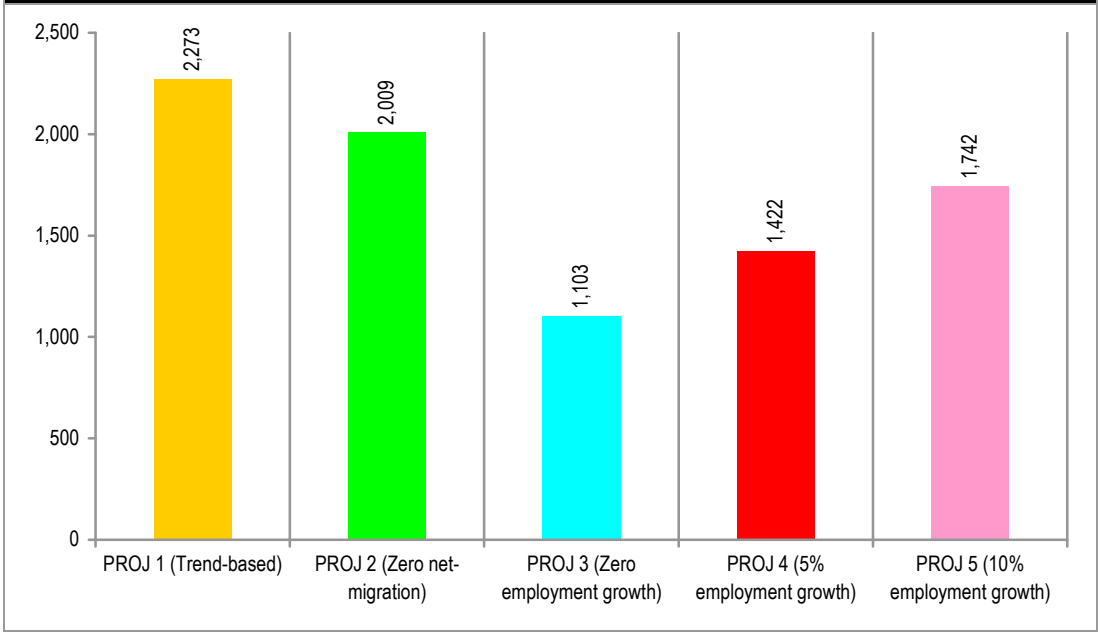
PROJECTIONS FOR THE LEICESTER PRINCIPAL URBAN AREA (PUA)

27. The Principal Urban Area (PUA) of Leicester is used to describe the urban area of the City which extends beyond the City Council's boundaries and includes all of Oadby & Wigston and parts of Blaby, Charnwood and Harborough. The same set of projections (other than relating to build-rates) have been run for this wider area and are presented below in terms of population, housing and employment growth (annual figures only are presented).

28. The data shows that under trend-based assumptions there would be expected to be a housing requirement of about 2,300 homes per annum, this would see reasonably strong population and employment growth. The lowest figures come out under the zero employment growth scenario which shows a housing requirement of only 1,100 units per annum and a relatively low level of population growth.

Summary of projections 2006 to 2031 – annual – Principal Urban Area						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	3,892	0.9%	2,273	1.3%	1,454	0.7%
PROJ 2 (zero net-migration)	3,250	0.8%	2,009	1.2%	1,122	0.6%
PROJ 3 (zero employment growth)	1,025	0.2%	1,103	0.6%	0	0.0%
PROJ 4 (5% employment growth	1,808	0.4%	1,422	0.8%	397	0.2%
PROJ 5 (10% employment growth)	2,592	0.6%	1,742	1.0%	795	0.4%

Summary of housing requirements (2006 to 2031) – per annum – Principal Urban Area



CONCLUSIONS

29. The Housing Requirements project is intended to provide robust evidence of need and demand to support local authorities in Leicester and Leicestershire, particularly those seeking to progress their Local Development Framework Core Strategies and for those authorities who wish to review their Core Strategies at the appropriate time.

30. The project has included development of various projections for housing requirements taking account of demographic trends and considering how this might relate to alternative scenarios for employment growth. PROJ 2 and PROJ 3 were developed as comparative scenarios to understand the impact of migration and the relationship between population and employment levels and do not represent an assessment of need and demand.

31. In clarifying what could be regarded as an objective assessment of development needs, local authorities should consider what level of economic growth is realistic to plan for in their areas. The economic development strategies of local authorities and the Local Enterprise Partnership are relevant considerations. This may inform consideration of the potential impact of economic growth on housing demand with reference to the high level economic-driven scenarios included herein. The demographic projections should also be brought together with the conclusions of the latest Strategic Housing Market Assessment.

32. It is for individual authorities to bring together the project's findings with the wider range of factors which need to be considered in determining housing requirements through the LDF process. These include:

- The spatial strategy (developed as part of the plan-preparation process);
- Evidence of land availability;
- Other elements of the local and Leicester and Leicestershire evidence base, including the Strategic Housing Market Assessment, Local Economic Assessments and Employment Land Reviews;
- Infrastructure requirements and delivery;
- Community and stakeholder engagement; and
- Sustainability Appraisal (including Strategic Environmental Assessment).

33. The draft NPPF does however make clear that the local authorities should plan on the basis of meeting objectively assessed development needs unless there are specific circumstances where the adverse impacts of doing so would significantly and demonstrably outweigh the benefits. Environmental designations of national significance or strategic infrastructure constraints could for instance constrain the ability of a local authority to meet its needs.

34. Across Leicester and Leicestershire as a whole, we consider that a realistic and defensible assessment of housing need and demand based on current evidence would fall between 3,500 – 4,500 homes per annum over the 2006-31 period. The bottom end of this range corresponds with achieving 5% employment growth between 2006-31, PROJ 4), whilst the top end is based on past demographic trends (PROJ 1). The baseline forecast of economic performance is of 5.9% employment growth over the 2006-31 period. We consider that provision of between 4,000 – 4,500 homes per annum would represent a positive planning framework which would ensure that housing provision did not constrain the ability of the sub-region's economy to achieve a level of economic growth above the baseline forecast.

35. In light of proposals within the draft National Planning Policy Framework, we would recommend that local authorities (specifically those without adopted or submitted Core Strategies) considered what level of employment growth could be considered realistic in their area, taking account of the performance and prospects of their local economies. Using the projections developed, this should be used to make an objective assessment of development needs in their area. This should be undertaken evaluating together the economic and demographic led projections, and considering what realistic assumptions on employment growth should be for strategic planning purposes. The ability to deliver this level of housing development should then be assessed.

36. We would expect those authorities with adopted Core Strategies to assess the strategic fit of these with the policies within the NPPF. In light of the current wording in the draft NPPF this would include consideration of whether the policies within their plan meet identified development needs in their area. The projections of developed herein can help to inform this process, and consideration of any need to review LDF documents.

37. In line with the Duty to Cooperate on strategic planning issues, continued sub-regional working at the Housing Market Area level, will be important in considering and addressing any shortfall in what an individual local authority might be able to provide against assessed development needs.

1. Introduction

1.1 GL Hearn (GLH) with Justin Gardner Consulting (JGC) have been commissioned by partners in Leicester and Leicestershire to develop an evidence base to support local communities and authorities in determining future housing requirements. The project has been guided by a Steering Group made up of representatives of Leicestershire County Council, Leicester City Council, Blaby District Council, Charnwood Borough Council, Harborough District Council, Hinckley & Bosworth Borough Council, Melton Borough Council, North West Leicestershire District Council and Oadby & Wigston Borough Council.

CONTEXT & OBJECTIVES

1.2 The project is set against the Coalition Government's stated intention to abolish Regional Spatial Strategies (RSS) and the housing targets set out within them. Instead individual district, borough and city councils will be responsible for determining housing requirements in their areas through their Local Development Frameworks (LDFs). Primary legislation is required for this change of policy which is being progressed through the Localism Bill which is currently working its way through Parliament. In advance of the enactment of the Localism Bill and revocation of Regional Spatial Strategies, the RSS remains part of the development plan and the Local Development Framework must accord with it.

1.3 Of the eight unitary or district local authorities in Leicester and Leicestershire, three have adopted Core Strategies. These are Leicester, Oadby and Wigston and Hinckley and Bosworth. Harborough District Council has submitted its Core Strategy for examination. The Core Strategies for these authorities are based on the housing requirements established in the Regional Spatial Strategy, consistent with current national policy. The involvement of these local authorities in this project has been based on it providing an evidence base for housing requirements post 2026 to inform any future reviews of their Local Development Frameworks. For the other four local authorities, these being Blaby, Charnwood, Melton and North West Leicestershire, this project is intended to provide an evidence base to support the progression of their Core Strategies.

1.4 While local authorities will be responsible for determining housing requirements in their areas following the enactment of the Localism Bill, Government has made it clear that any housing numbers will need to be justified, and that the local authority will need to be able to defend this at public examination. This should be done in line with current national planning policy. Policies for housing provision must thus be based on a robust evidence base.

1.5 The Localism Bill also proposes to introduce a duty for local authorities to cooperate with one another in the preparation of Development Plan Documents. This is particularly relevant in terms of setting out housing policies, recognising that housing markets transcend the boundaries of individual local authorities and thus the supply policies within a local authority can have an impact beyond its boundaries.

1.6 Previous work undertaken at the regional level defined Leicester and Leicestershire as a functional sub-regional housing market[1]. The local authorities across Leicester and Leicestershire cooperated in informing the preparation of the RSS. It is therefore sensible for the authorities to continue to work together to address housing policy issues and this provides a context for the joint engagement of the seven district and borough councils across Leicestershire together with Leicestershire County Council and Leicester City Council in this project. The specific objectives of this project are to:

- Review the basis of the housing requirements set out within the East Midlands Regional Plan (the RSS) – cataloguing how the numbers at both a housing market and district level were derived, and the assumptions and policy decisions which informed them; and
- To develop an evidence base for considering future housing requirements – taking account of trends in population and households, including the Government's official projections, together with wider housing market and economic circumstances.

1.7 This report focuses on evidence of housing need and demand, which is one of a number of factors which should come together to inform housing requirements. These are set out below.

Figure 1.1: Key Factors in Assessing Appropriate Levels of Housing Provision

Source: GL Hearn (adapted from PPS3 & PPS12)

[1] DTZ Pieda (2005) Identifying the Sub-Regional Housing Markets of the East Midlands

THIS REPORT

1.8 The remainder of this report is structured as follows:

- Section 2: Context to the Study;
- Section 3: Overview of Housing Market Dynamics;
- Section 4: Main Population Projections;
- Section 5: Economic-Driven Population Projections;
- Section 6: Household (and Housing) Growth Projections;
- Section 7: Projections for the Principal Urban Area; and
- Section 8: Using the Projections in Plan-Making.

1.9 In addition a number of appendices are provided which support the analysis in the main report. These are as follows:

- Appendix 1: Validating the Projection Methodology;
- Appendix 2: Natural Change (Zero Migration) Projection;
- Appendix 3: Detailed District Level Findings;
- Appendix 4: Impact of Changes in Headship Rates;
- Appendix 5: Synopsis of RSS Process; and
- Appendix 6: Detailed Projection Modelling and Assumptions.

2. Context to the Study

2.1 National planning policy, the status of existing LDF Core Strategies in Leicester and Leicestershire and the current state of the housing market provide an important context to consideration of future housing requirements and are considered in this section. This provides an important context to consideration of housing demand in terms of population and household growth in subsequent sections.

NATIONAL PLANNING POLICY

2.2 National policy in planning for housing provision is set out in Planning Policy Statement 3 (PPS3). The latest version of PPS3 was published by the Department for Communities and Local Government (CLG) in June 2011. It makes clear that there are a range of factors which come together to inform consideration of housing requirements.

Assessing an Appropriate Level of Housing: PPS3 Paragraphs 32-33

The level of housing provision should be determined taking a strategic, evidence-based approach that takes into account relevant local, sub-regional, regional and national policies and strategies achieved through widespread collaboration with stakeholders.

In determining the local, sub-regional and regional level of housing provision, Local Planning Authorities and Regional Planning Bodies, working together, should take into account:

- Evidence of current and future levels of need and demand for housing and affordability levels based upon:
  - Local and sub-regional evidence of need and demand, set out in Strategic Housing Market Assessments and other relevant market information such as long term house prices.
  - [Advice from the National Housing and Planning Advice Unit (NHPAU) on the impact of the proposals for affordability in the region[A].]
  - The Government's latest published household projections and the needs of the regional economy, having regard to economic growth forecasts.
- Local and sub-regional evidence of the availability of suitable land for housing using Strategic Housing Land Availability Assessments and drawing on other relevant information such as the National Land Use Database and the Register of Surplus Public Sector Land.
- The Government's overall ambitions for affordability across the housing market, including the need to improve affordability and increase housing supply.
- A Sustainability Appraisal of the environmental, social and economic implications, including costs, benefits and risks of development. This will include considering the most sustainable pattern of housing, including in urban and rural areas.
- An assessment of the impact of development upon existing or planned infrastructure and of any new infrastructure required.

[A] The NHPAU has subsequently been abolished by the Coalition Government

2.3 National policy clearly sets out that there are a range of factors which come together to inform consideration of housing requirements. The chart below illustrates the range of factors which come together to inform the consideration of housing requirements through the plan-making process.

Figure 2.1: Process for Establishing Housing Requirements

Source: GL Hearn (adapted from PPS3 & PPS12)

2.4 The focus of this study is on housing need and demand. However in determining housing requirements, this needs to be brought together with information on land availability, infrastructure constraints and requirements, and sustainability appraisal which must consider alternative policy options against social, economic and environmental objectives.

2.5 In late July 2011 the Government published a draft of the National Planning Policy Framework (NPPF) which, when issued in final form, will replace PPS3. This sets out that the Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth, including through ensuring that development needs, including for housing, are met. It requires local planning authorities to produce a Local Plan for their area which sets out strategic priorities for development in their area, and includes policies on housing development requirements.

2.6 The draft NPPF introduces a presumption in favour of sustainable development, whereby local planning authorities should prepare local plans on the basis that objectively assessed development needs (both for housing and other types of development) should be met, unless the adverse impacts of doing so would significantly and demonstrably outweigh the benefits when assessed against the document as a whole. The starting point is that Local Plans should meet the full requirements for market and affordable housing in their area. Any under-provision is expected to be addressed through collaborative working with neighbouring authorities, and this is included within the tests of soundness of the plan. The Government intends to put in place, through the Localism Bill, a duty for local authorities to cooperate with relevant neighbouring authorities in preparation of Development Plan Documents.

2.7 The Impact Assessment (CLG, July 2011) which accompanied the draft NPPF sets out that the presumption in favour of sustainable development will place a much stronger expectation on local councils to meet the identified development needs of their areas (unless to do so would conflict with the key policy objectives of the Framework taken as a whole). National policy did not contain such an explicit requirement previously, as Regional Spatial Strategies provided top-down targets for individual councils that were only partly reflective of their levels of need. This mean that some councils' housing figures fell well below their needs, whereas others may have accommodated more growth than their indigenous needs. The draft NPPF proposes to make the goal of meeting need an explicit policy requirement on all councils, unless there are environmental or infrastructure factors of national policy significance[2].

PROGRESS WITH CORE STRATEGIES

2.8 The East Midlands Regional Spatial Strategy was published by the Government in March 2009. A number of local authorities in Leicester and Leicestershire have progressed Core Strategies to adoption on the basis of the housing figures within the RSS. These comprise:

- Hinckley & Bosworth Core Strategy – adopted December 2009
- Oadby & Wigston Core Strategy – adopted September 2010
- Leicester City Core Strategy – adopted November 2010

2.9 The documents set out housing targets to 2026 for strategic planning purposes. For these local authorities, their involvement in this project has been on the basis that it might inform any future reviews of their Core Strategies in considering housing requirements in the longer-term to 2031. However none of these authorities have at the time of writing established a programme for progressing a Core Strategy Review, they are concentrating on other Development Plan Document production

[2] CLG (July 2011) Draft National Planning Policy Statement: Impact Assessment (pages 23-26)

2.10 The project is thus focused particularly in providing an evidence base to inform consideration of housing requirements for the other four local authorities in the Leicester & Leicestershire HMA.

2.11 Harborough District Council consulted on a Submission Draft Core Strategy in Autumn 2010 and submitted it to the Secretary of State in April 2011. Its proposed housing policies are based on the RSS housing target.

2.12 In a number of the other districts, Core Strategies are at an earlier stage of preparation. These comprise:

- Blaby Core Strategy – the Council did consult on a Pre-Submission Draft in Autumn 2009 but this has not been submitted;
- Charnwood Core Strategy – the Council last consulted on a draft document in October 2008 and we understand is working towards drafting a Submission Document for consultation later in 2011;
- Melton Core Strategy – the Council consulted on Preferred Option in early 2008 and is now working towards drafting a Submission Document for consultation in September-October 2011;
- North West Leicestershire - the Council undertook further consultation on a draft Core Strategy between November 2008 – March 2009, and has undertaken a further round of consultation in June/July 2011. The latter considered housing provision numbers, amongst other issues, but this has not taken account of the findings of this report.

2.13 This project may inform and provide an evidence base for progression with LDF Core Strategies. Any decision, however, will depend on whether there remains scope and desire to introduce new housing evidence given the clear relationship with other aspects of the evidence base and the programme each local authority is following. This will be a decision for individual local planning authorities. In the longer-term it may inform the review of Core Strategies.

BASIS OF RSS HOUSING TARGETS FOR LEICESTER & LEICESTERSHIRE

2.14 A separate paper has been produced as part of this project which describes in detail the evidence, strategy and judgements which were used to formulate housing requirements in the East Midlands RSS. In this section we summarise the findings of this review.

2.15 Housing requirements for the Leicester & Leicestershire Housing Market Area (HMA) were based on the CLG 2004-based household projections, with a minor adjustment of -0.5% to take account of the 'net policy impact' of the spatial strategy proposed at the regional level, and an allowance of 2% to allow for vacancy within the new housing stock. The projections were based on the period 2001-26, but figures were rebased to account for completions between 2001-6. This resulted in a housing requirement for 4,020 dwellings per annum over the 2006-26 plan period across Leicester and Leicestershire.

2.16 The distribution within the HMA evolved through the various stages of the RSS Review but fundamentally reflected evidence of urban capacity, coupled with the spatial strategy of 'urban concentration and regeneration.' This involved proposals for Sustainable Urban Extensions (SUEs) to the Principal Urban Area (PUA) of Leicester and the Sub-Regional Centres, as follows:

Final East Midlands Regional Plan: Housing Provision Policies

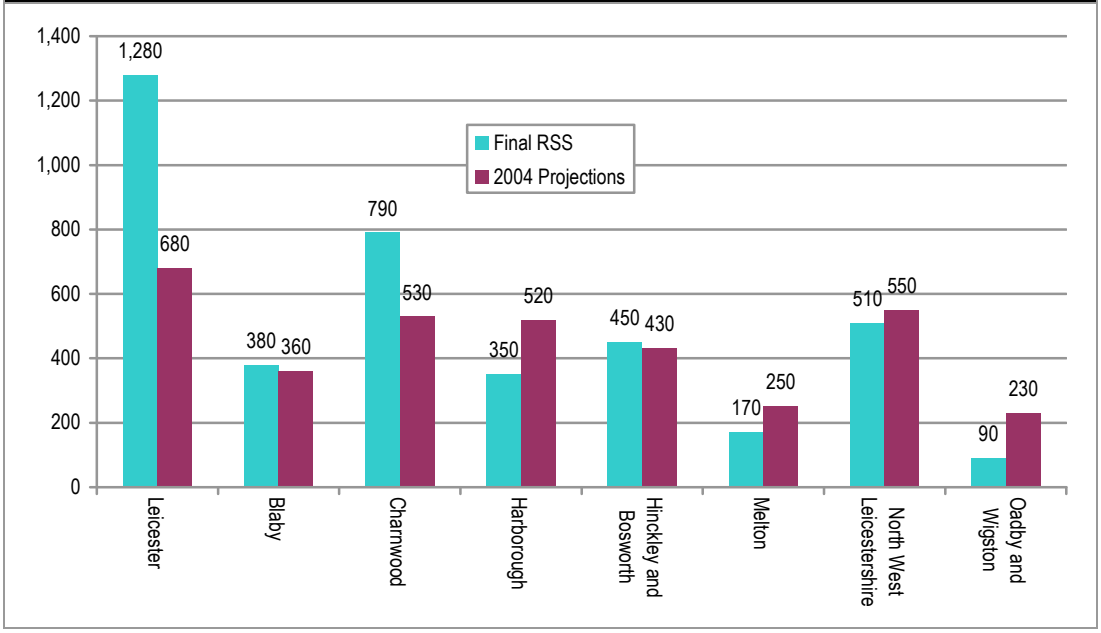
Policy Three Cities SRS 3

Provision for new housing will be made at the following levels over 2006-26:
Leicester & Leicestershire HMA Total: 4020 dwellings per annum (dpa), of which 1990 dpa should be within or adjoining the Leicester PUA
Leicester City: 1280 dpa, all within Leicester PUA
Blaby: 380 dpa of which at least 250 dpa should be within or adjoining the Leicester PUA, including sustainable urban extensions as necessary
Charnwood: 790 dpa of which at least 300 dpa should be within or adjoining the Leicester PUA including sustainable urban extensions as necessary. Development in the remainder of the District will be located mainly at Loughborough, including sustainable urban extensions as necessary
Harborough: 350 dpa of which at least 40 dpa should be within or adjoining Leicester PUA including sustainable urban extensions as necessary. Development in the remainder of the District will be located primarily at Market Harborough, including sustainable urban extensions as necessary
Hinckley & Bosworth: 450 dpa located mainly at Hinckley, including sustainable urban extensions as necessary
Melton: 170 dpa located mainly at Melton Mowbray, including sustainable urban extensions as necessary
North West Leicestershire: 510 dpa located mainly at Coalville, including sustainable urban extensions as necessary
Oadby & Wigston: 90 dpa within or adjoining the Leicester PUA.

Source: GOEM (March 2009) East Midlands Regional Plan

2.17 The table below sets out for comparative purposes the RSS housing targets, the CLG 2004-based household projections, on which these were based, and what the housing targets would mean in terms of household growth per annum. Each is expressed as an annual figure over the 2006-26 period. It should be noted that the RSS figures included allowance for any under/oversupply in the period 2001-6 relative to projected requirements.

Figure 2.2: Comparison of 2004-based Household Projections and RSS Targets (Per Annum 2006-26)



Source: CLG 2004-based Household Projections; RSS Dwelling Targets (Final Plan, 2009)

3. Housing Market Dynamics

3.1 The diagram below outlines the key influences on housing demand. These factors play out at a range of spatial scales and influence both the level of housing demand and the nature of demand for different types, tenures and sizes of homes.

Figure 3.1: Understanding Housing Demand

3.2 The **key structural drivers of housing need and demand in the longer-term are demographic and economic trends** which affect total housing requirements across the Leicester and Leicestershire Housing Market Area.

3.3 While affordability pressures are likely to influence effective demand for market housing, and particularly the sales market; they are likely to have a very limited impact on overall housing demand, particularly over the longer-term timescales used for strategic planning purposes. A number of the other factors identified, including quality of place, the existing stock and accessibility are likely to have a more local impact and influence relative demand in different towns or neighbourhoods within the housing market area rather than influence aggregate demand within it.

3.4 The Leicester and Leicestershire Strategic Housing Market Assessment (SHMA) provides a full assessment of the housing offer, market dynamics and housing need. It identifies the key influence of Leicester on the housing market, with younger, newer and less well-off households moving to the City; and then flows of families from the City to the suburbs and smaller towns. This profile is influenced by the housing offer in different areas, with more flats and terraced housing in Central Leicester and inner areas of a number of the other main towns, and larger semi-detached and detached properties in more suburban locations and rural areas. This profile of housing and dynamic of movement is true of many cities. However a particular dimension in Leicester is a large Asian population who have historically lived in smaller terraced housing in east central Leicester, but with evidence of movement of more affluent households within the community elsewhere including to suburbs such as Oadby, Thurmaston and Thurnby.

HOUSING NEED

3.5 The SHMA identified net affordable housing need of 2,654 households per annum across Leicester and Leicestershire following the housing needs model proposed within CLG Practice Guidance on SHMAs. The SHMA identifies the following requirements at a local level:

Figure 3.2: Affordable Housing Requirements

Local Authority	Annual Affordable Housing Requirement
Blaby	289
Charnwood	309
Harborough	264
Hinckley & Bosworth	290
Leicester	790
Melton	143
NW Leicestershire	355
Oadby & Wigston	214
Leicester & Leicestershire Total	2,654

Source: SHMA 2008

3.6 The SHMA identified that affordable housing need was particularly high in rural areas and estimated a requirement for at least 250 additional homes per annum in rural areas. It estimated a requirement for 22% intermediate housing across the housing market (with variance from 18-25% at a local authority level).

3.7 The needs assessment is a point-in-time snapshot of the relative need for and supply of affordable housing. The high levels of housing need shown are a consequence of a period (in the decade to 2007) in which house prices grew much more quickly than earnings. House prices grew to a stage when many young households without existing equity could no longer afford to buy a home (in contrast to older existing owner occupiers who saw the value of their property increase substantially). We understand that the key inputs to the housing needs assessment model has been updated since the original 2008 Assessment.

3.8 The housing needs model does not include any allowance for the contribution which the Private Rented Sector, in reality, makes to affordable housing supply. Properties in the private rented sector are available to those who cannot secure a social sector tenancy supported by housing benefit (Local Housing Allowance). Nationally, an estimated 19% of households in the private rented sector are supported by Housing Benefit[3]. Many private rented tenants on housing benefit would however prefer a social sector tenancy if one was available.

3.9 Because net estimates of housing need are influenced by the availability of existing affordable housing stock, which is influenced by historic investment decisions; as well as the role which the private sector can play in meeting the shortfall of supply; **we do not believe that housing needs figures should inform the estimation of aggregate housing requirements across tenures**.

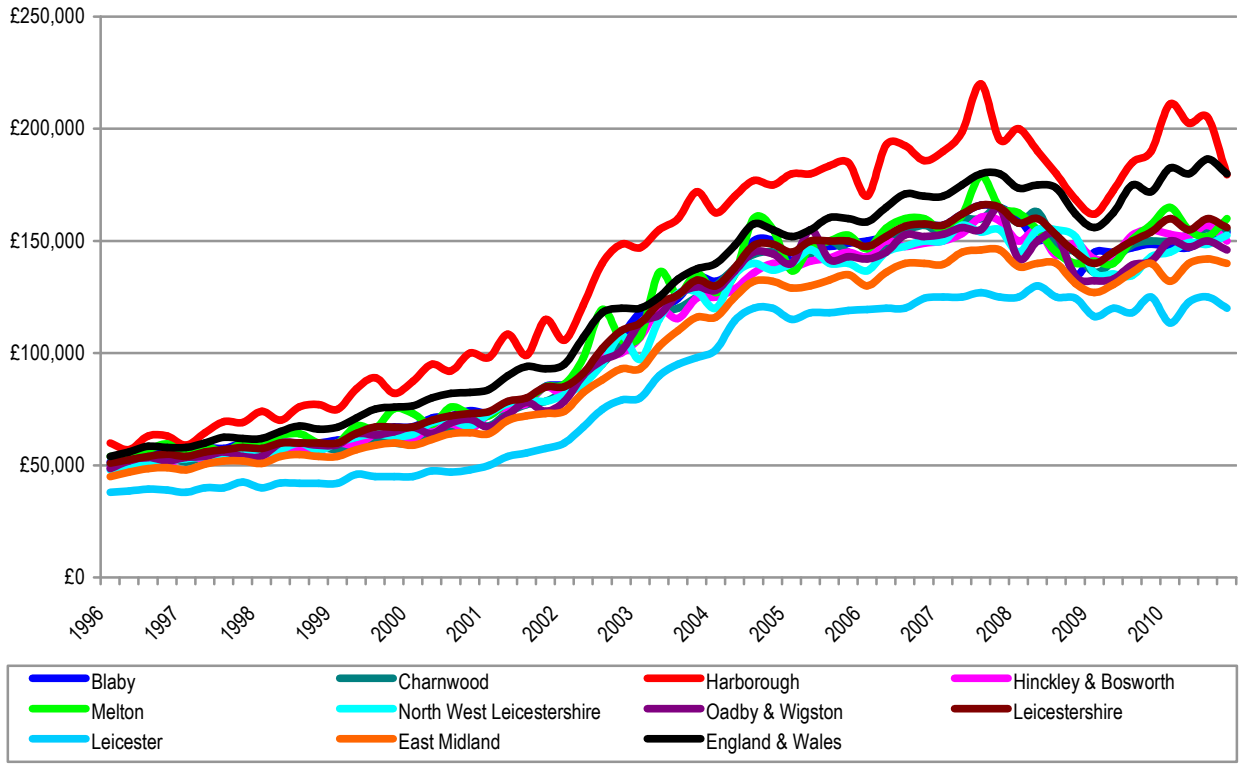
3.10 As a result of changes in the population structure, the SHMA also forecast an increasing requirement for specialist housing for older people including housing with care and residential and nursing home provision. It identifies an oversupply of student housing in the short-term relative to demand.

RECENT HOUSING MARKET DYNAMICS

3.11 We have seen a considerable degree of change in housing market conditions over the last few years. Over the decade to 2007 the housing market was buoyant and house prices in Leicestershire almost trebled, increasing from an average of £58,000 to £165,000 (+284%). In Leicester they increased from £42,500 to £125,000 (+294%). This strong growth in house prices was supported by economic stability, historically low interest rates and the availability of a range of mortgage products. These macro-economic factors enabled much stronger growth in house prices relative to incomes; with the ratio of average (median) house prices to earnings increasing from 3.3 in Leicestershire in 1997 to 7.1 in 2007, and from 2.6 to 5.7 in Leicester over this period.

[3] Source: NHPAU

Figure 3.3: House Price Change, 1996 - 2010

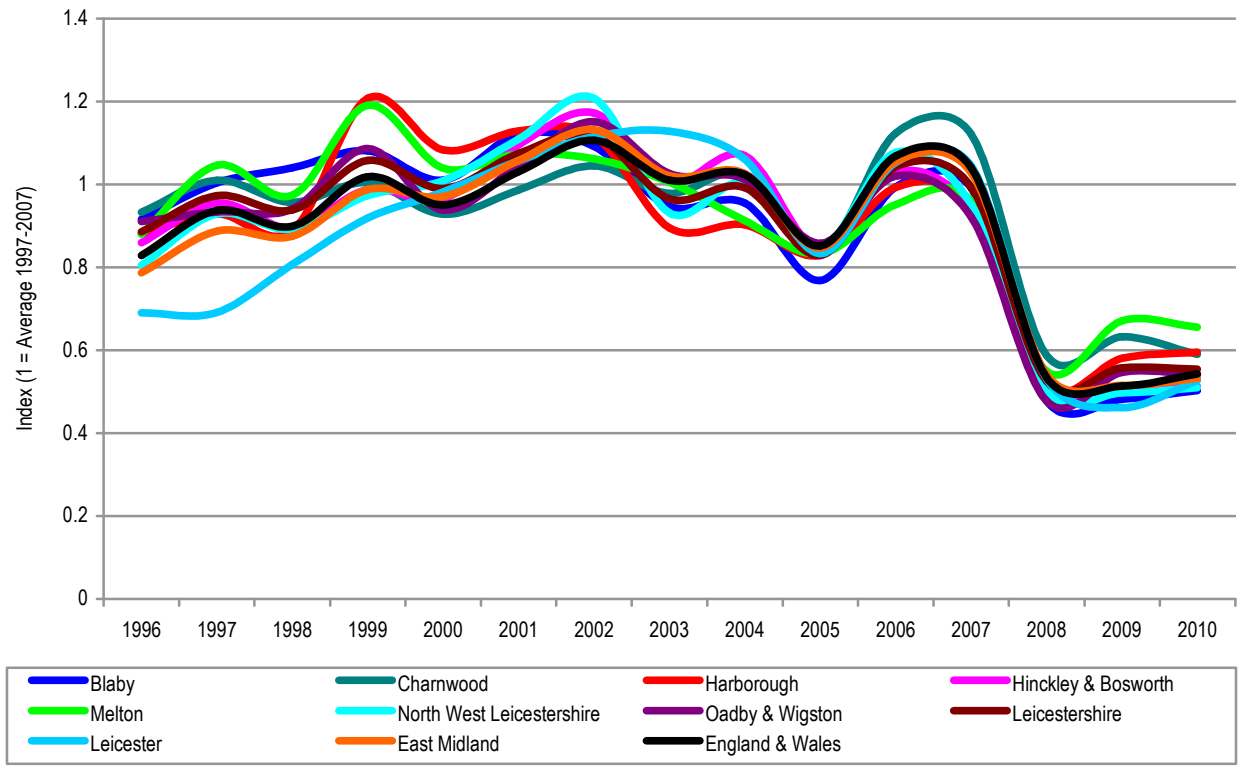


Source: HM Land Registry

3.12 A market downturn has occurred since 2007 and has been driven particularly by changes in lending practices by the banks. House prices dropped notably, but have recovered slightly and in Q4 2010 were 6% below their peak in Leicester City and Leicestershire. However prices alone do not give an accurate picture of housing market dynamics.

3.13 Sales levels in 2010 were 44% below average levels over the 1997-2007 decade in Leicester and 46% below in Leicestershire. At a local authority level Melton has seen the strongest recovery, but still has sales -35% down on normal conditions, with Hinckley & Bosworth seeing the lowest level of sales in 2007; -49% down on 1997-07 averages. The low level of sales particularly reflects a reduction in the availability of mortgage products which is affecting the vitality of the market, and effective demand for house purchases. The average deposit paid by a first-time buyer across the UK was 16% in 2006: in late 2010 it stood at 28%. Many young would-be buyers no longer have sufficient savings to buy homes and this is having a substantial affect on the overall market.

Figure 3.4: Housing Sales, 1996 - 2010



Source: HM Land Registry

3.14 The combination of a sustained period of strong growth in house prices relative to earnings to 2007, coupled with the now substantial deposits which households need to raise to get a foothold on the housing ladder means that the housing market has become increasingly divided between those with and without equity in their homes. Existing home owners with equity have benefitted from a growth in the value of their asset; while those without now face considerable difficulties in buying a home. Thus while the ratio of house prices to earnings has now fallen – from 5.7 in 2007 to 4.9 in 2010 in Leicester and from 7.1 to 6.4 in Leicestershire – the problem is that many young households do not have sufficient savings to form a deposit for a new home.

3.15 These factors have led to a reduction in effective demand for home purchase, as borne out in sales levels, but do not have an impact on the overall or aggregate housing requirements; as households who cannot afford to buy will look to the rented tenures to find suitable housing. In the next sections of the report we go on to consider demographic and economic trends.

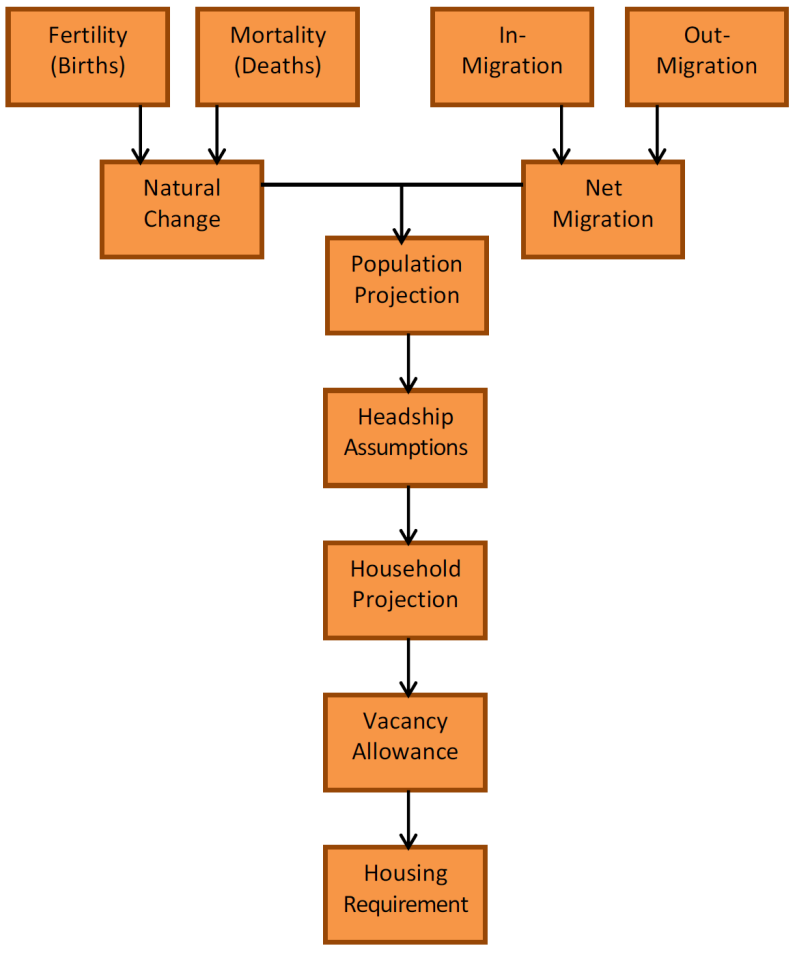
4. Main Population Projections

INTRODUCTION

4.1 In this section we develop population projections for the Leicester and Leicestershire local authorities and explain some of the key assumptions which underpin these projections. Projections of population based on past trends (PROJ 1) and zero net migration (PROJ 2) are set out. The latest ONS population projections (2008-based) are included for comparison purposes.

4.2 The first thing we need to establish is the current population and how will this change in the period to 2031. This will require us to work out how likely it is that women will give birth (the fertility rate); how likely it is that people will die (the death rate) and how likely it is that people will move in to or out of the study area (or to/from individual local authorities as appropriate). These are the principal components of population change and are used to construct our principal trend-based population projections. The figure below shows the key stages of the projection analysis through to the assessment of housing requirements.

Figure 4.1: Overview of Methodology



4.3 In general we have presented information for the whole of Leicester and Leicestershire with all key inputs and outputs also being presented for individual local authorities and for Leicester and Leicestershire separately where appropriate. More information about the assumptions used (particularly at local authority level) can be found in Appendix 6.

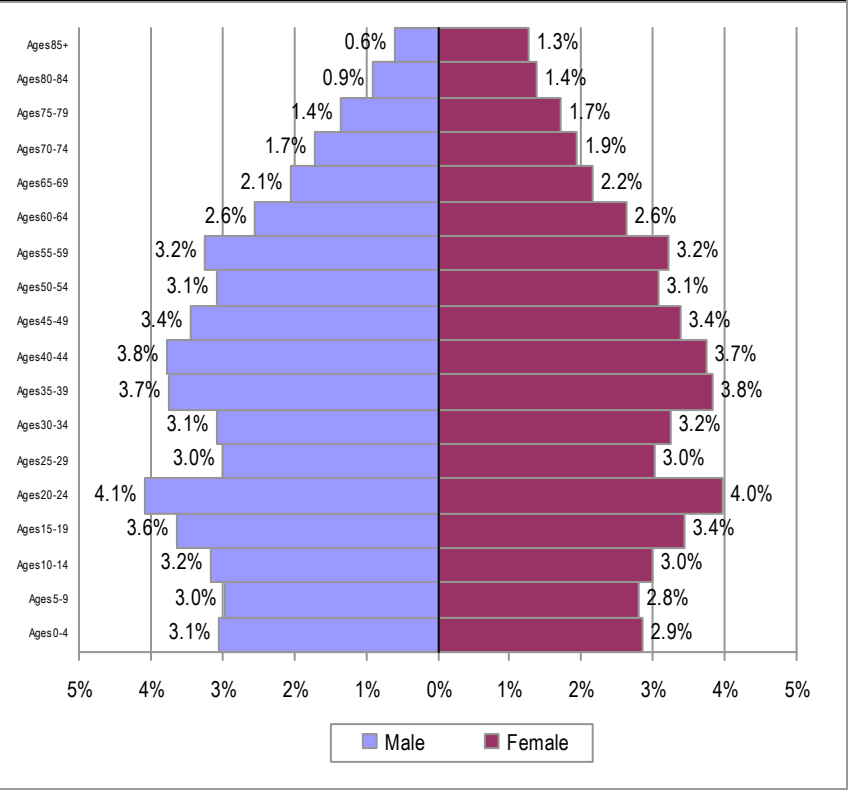
4.4 The broad methodology as shown in Figure 4.1 is common to all of the projections developed in this report. Key assumptions vary between scenarios, and in particular the assumptions around migration which are adjusted in the different projections. Variations in migration assumptions are reflected in the outputs of the various projections.

BASELINE POPULATION

4.5 The baseline for our projections is taken to be mid-2006 with the projection run for five year intervals over the period up to 2031. The estimated population profile as of 2006 has been derived from background data provided as part of the 2008-based CLG household projections and is shown below. It is consistent with ONS 2006 Mid Year Population Estimates.

Figure 4.2: Population of Leicester and Leicestershire (5 year age bands) – 2006

Age group	Male	Female
Ages 85+	5,561	11,672
Ages 80-84	8,390	12,686
Ages 75-79	12,614	15,860
Ages 70-74	15,825	17,998
Ages 65-69	19,103	20,065
Ages 60-64	23,755	24,450
Ages 55-59	30,038	29,850
Ages 50-54	28,686	28,634
Ages 45-49	31,922	31,495
Ages 40-44	34,963	34,720
Ages 35-39	34,702	35,496
Ages 30-34	28,721	30,182
Ages 25-29	27,724	27,990
Ages 20-24	37,956	36,865
Ages 15-19	33,760	31,911
Ages 10-14	29,281	27,739
Ages 5-9	27,473	25,939
Ages 0-4	28,418	26,570
All Ages	458,892	470,122



Source: Derived from 2008-based CLG household projections

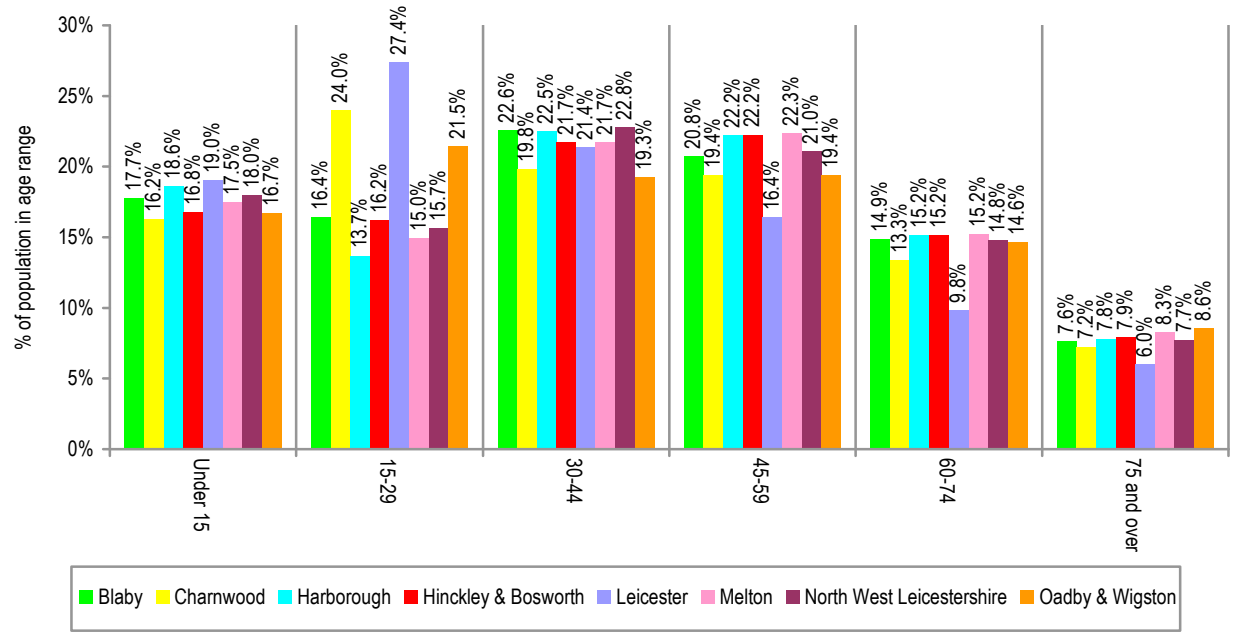
4.6 The two figures below indicate the 2006 population estimates for each local authority and also the age structure (in six broad bands) for each local authority in 2006. Data for five year age bands for each local authority area can be found in Appendix 6.

Figure 4.3: Total Population in each Local Authority Area (2006)		
Local authority	Population	% of total population
Blaby	92,526	10.0%
Charnwood	159,578	17.2%
Harborough	81,103	8.7%
Hinckley & Bosworth	103,216	11.1%
Leicester	296,753	31.9%
Melton	48,492	5.2%
North West Leicestershire	89,261	9.6%
Oadby & Wigston	58,085	6.3%
Leicester & Leicestershire	929,014	100.0%

Source: Derived from 2008-based CLG household projections

4.7 The data shows that just under a third of the total population lives in Leicester with Melton having the smallest population, closely followed by Oadby & Wigston. In terms of the population profiles it is clear that students have a significant impact on the populations of Charnwood, Leicester and Oadby & Wigston. Leicester is also notable for having a relatively small population aged 45 and over. With the exception of Leicester the proportion of the population aged 60 and over is broadly similar in each local authority area.

Figure 4.4: Age Profile of Population in Leicester and Leicestershire by Local Authority (2006)



Source: ONS 2006 Mid-Year Population Estimates

FERTILITY RATES

4.8 To project the number of births we have projected age specific fertility rates. This is the number of births to women in particular age groups (taken in five year bands from 15 to 44). Local level figures can be quite variable year on year and we have therefore drawn on information from ONS about future fertility rates. The general position taken by ONS currently is that fertility rates will be fairly constant over the next 25-years and at a level about 5% below 2008 estimates (nationally a Total Fertility Rate (TFR) of 1.95). A Total Fertility Rate (TFR) is the average number of children that would be born to a woman during her childbearing years. The table below therefore shows the TFR assumptions in each local authority for the initial 2006-2011 period and the figure assumed for the remainder of the projection. More details about fertility rates and background calculations can be found in Appendix 6.

Figure 4.5: Fertility Rate Assumptions for Projection

Area	2006-2011	2011-2031
Blaby	1.98	1.89
Charnwood	1.74	1.65
Harborough	2.10	1.99
Hinckley & Bosworth	1.87	1.77
Leicester	2.00	1.89
Melton	2.04	1.96
North West Leicestershire	2.09	1.97
Oadby & Wigston	1.77	1.70

Source: Derived from ONS data

4.9 In addition to establishing overall fertility rates it is necessary to make an estimate of the distribution of births amongst women of different ages. This is the number of births to women in particular age groups (taken in five year bands from 15 to 44). Full details about age specific fertility rates can be found in Appendix 6.

4.10 A further consideration required for projecting the population is the ratio between male and female births. For the purpose of our projection we have assumed a ratio of 1.05 male births per female birth which is consistent with national data for the period from 2004 to 2009.

DEATH RATES

4.11 Death rates input into the model are based on life tables produced by ONS for use in national projections. These are then adjusted to take account of the different life expectancy in the eight local authority areas (with further (minor) adjustments made taking into account figures derived from the 2008-based ONS population projections). A life table is a table which shows, for each age, what the probability is that a person of that age will die before their next birthday. Life tables are constructed separately for men and for women because of their different mortality rates.

4.12 For data on death rates we have looked at estimates of life expectancy at birth. The table below shows average life expectancy from January 2007 to December 2009 for the eight authorities, the East Midlands and England. The data shows that life expectancy in all areas other than Leicester tends to be higher than either national or regional averages (noting that female life expectancy in North West Leicestershire is slightly lower than regional and national figures).

Figure 4.6: Life Expectancy at Birth, 2007-2009

Area	Males	Females
Blaby	80.1	84.2
Charnwood	79.4	83.1
Harborough	79.6	84.1
Hinckley & Bosworth	79.9	83.9
Leicester	75.4	80.0
Melton	80.3	83.1
North West Leicestershire	78.6	82.0
Oadby & Wigston	79.9	83.0
East Midlands	78.1	82.1
England	78.3	82.3

Source: Office for National Statistics

4.13 When projecting changes in death rates in to the future, we are driven by the assumptions used in national projections. The national figures set out three options for mortality plus a scenario where there is no change in mortality (which has been called a 'special case' scenario). We believe that death rates are likely to improve and have therefore used the 'principal variant' scenario from ONS as a guide to likely future improvements in life expectancy. The ONS data looks at a period from 2008 to 2033 (i.e. 25 years) and we have assumed a linear improvement in death rates over this period.

4.14 The table below sets out our estimates of average life expectancy in each of the key periods 2006-2011 and 2026-2031. The figures for 2006-2011 have been set by reference to the figures in the above table where it is assumed that the figures for 2007-2009 will equate to an average over a longer five year period from 2006 to 2011. The figures show improvements for both sexes with greater improvements in areas with currently lower life expectancy (consistent with ONS projections). In addition, for females the improvements in life expectancy are slightly lower than for males. This pattern is consistent with ONS assumptions '*that for most ages these improvements will gradually converge to common 'target rates' of improvement'*.

Figure 4.7: Life expectancy (e0) in 2006-2011 and 2026-2031 for Local Authorities and by Sex

Area	Male			Female		
	2006-2011	2026-2031	% improve-ment	2006-2011	2026-2031	% improve-ment
Blaby	80.1	84.1	5.0%	84.2	87.4	3.8%
Charnwood	79.4	83.4	5.0%	83.1	86.4	4.0%
Harborough	79.6	83.5	4.9%	84.1	87.4	3.9%
Hinckley & Bosworth	79.9	84.0	5.1%	83.9	87.3	4.1%
Leicester	75.4	79.7	5.7%	80.0	83.6	4.5%
Melton	80.3	84.2	4.9%	83.1	86.4	4.0%
NW Leicestershire	78.6	82.8	5.3%	82.0	85.4	4.1%
Oadby & Wigston	79.9	84.1	5.3%	83.0	86.5	4.2%

Source: Based on ONS data

MIGRATION

4.15 Probably the hardest assumption to make for a local level projection is around migration. Although the 2001 Census would be considered as the main source of information about the profile of migrants it is slightly problematic, particularly as international out-migration is not measured; and the Census is for one year only.

4.16 We have therefore looked at past trend data about:

- the overall level of in and out-migration (including estimates of international in-migration and out-migration and other changes such as prison and boarding school populations); and
- data from ONS about the projected profile of in and out migrants (split between male and female and in 5 year age bands).

4.17 These two pieces of information are discussed below, drawing on data from ONS.

4.18 In studying migration patterns it is important to look at each of the eight local authorities individually as it is on this basis that statistics are produced. For migration this is particularly important to recognise as there will be migration between the eight authorities which would not be properly reflected if we were to add figures for individual districts together. That said, net figures can be added together provide an overall estimate of net migration into or out of the study area.

Overall Level of Migration

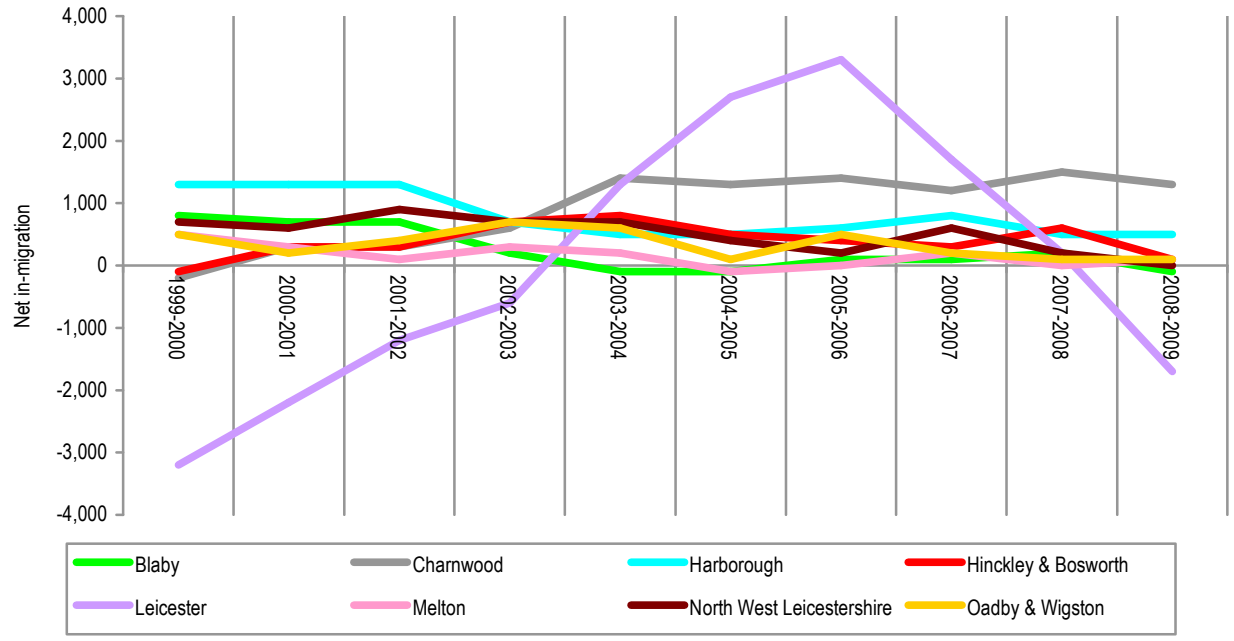
4.19 The following table and figure show annual estimates of net in-migration to each of the eight local authorities over the past 10 years. The figures are rounded to the nearest 100 persons. A ten year period has been used as this will better reflect longer-term trends (ONS projections tending to be based on more short-term (five year) periods). The data shows how variable net migration levels have been over this period with data for individual years ranging (in the case of Leicester) from an out-migration of 3,200 people to net in-migration of 3,300.

Figure 4.8: Net migration by local authority 1999-2009

Period	Blaby	Charn-wood	Har-borough	Hinckley & Bosworth	Leicester	Melton	North West Leicester-shire	Oadby & Wigston
1999-2000	800	-200	1,300	-100	-3,200	500	700	500
2000-01	700	300	1,300	300	-2,200	300	600	200
2001-02	700	300	1,300	300	-1,200	100	900	400
2002-03	200	600	700	700	-600	300	700	700
2003-04	-100	1,400	500	800	1,300	200	700	600
2004-05	-100	1,300	500	500	2,700	-100	400	100
2005-06	100	1,400	600	400	3,300	0	200	500
2006-07	100	1,200	800	300	1,700	200	600	200
2007-08	200	1,500	500	600	200	0	200	100
2008-09	-100	1,300	500	100	-1,700	100	0	100
Average 1999-2009	250	910	800	390	30	160	500	340

Source: Office for National Statistics Population Estimates (migration and other changes from published components of change data)

Figure 4.9: Net migration by local authority 1999-2009



Source: Office for National Statistics Population Estimates (migration and other changes from published components of change data)

4.20 The average figures shown in the last row of each table have been taken forward for use in our trend-based projection. It is however worth noting that because the projection runs from 2006 we already have three years worth of actual data (from 2006 to 2009) and so the first three years of the projection are fixed to the figures shown for this period in each authority. The longer term trend is therefore assumed from 2009 onwards.

Out-migration assumptions used for modelling

4.21 Having studied past trends in migration in Leicester and Leicestershire we are able to develop scenarios for future projections. As well as looking at overall levels of net in-migration it is important for us to consider how this is likely to be made up in terms of the gross levels of in and out-migration. This is mainly important for scenario testing where we have kept levels of out-migration constant but adjusted the levels of in-migration to match the scenario being studied (e.g. to look at a specific level of employment growth).

4.22 This approach has been adopted because at the local level in-migration is more likely to be affected by housing or economic change rather than out-migration (which will be driven more by any changes in areas outside of a local authority). For example, additional house building in a location is likely to increase the number of in-migrants but will have less impact on the number of out-migrants (although arguably low levels of house building could see additional out migration). Overall, the approach of holding out-migration constant for each projection run will not have any notable impact on the outputs.

4.23 On the basis of the above, it is therefore important to understand typical levels of out-migration to each area and we have studied this using information from ONS for the past five years (mid 2004 to mid 2009). The information is provided on an annual basis which we have added together to provide a figure for a five year period – necessary due to our projection running in five year tranches. The use of a five year period does open up a further problem in that some people will move both in and out of an area (or vice versa) during this period and therefore the true number of in- and out-migrants will be lower than is suggested by simply adding and averaging annual data for five year periods. We have therefore made a further adjustment (based on analysis of ONS projection data) to take account of multiple moves affecting each local authority.

4.24 The table below sets out figures for out-migration in each area and then applies a reduction factor to take account of multiple cross-boundary moves. This figure is then used to create an annual flow of out-migrants. As the table shows figures in all areas have been reduced and in some cases (particularly those with large student populations) the reductions are quite large. A similar analysis has also been carried out on our age/sex specific migration data and is presented in Appendix 6. The figures in the last column of the table have been taken forward into our modelling.

Figure 4.10: Out-migration (2004-2009) and modelling adjustments

Area	Total out-migration	Adjustment for multiple moves	Adjusted total out-migration	Annual out-migration
Blaby	23,000	15%	19,550	3,910
Charnwood	52,900	31%	36,501	7,300
Harborough	19,600	17%	16,268	3,250
Hinckley & Bosworth	21,400	11%	19,046	3,810
Leicester	107,900	25%	80,925	16,185
Melton	11,200	14%	9,632	1,930
North West Leicestershire	19,500	11%	17,355	3,470
Oadby & Wigston	22,400	32%	15,232	3,050

Source: Derived from ONS data

Profile of Migrant Population

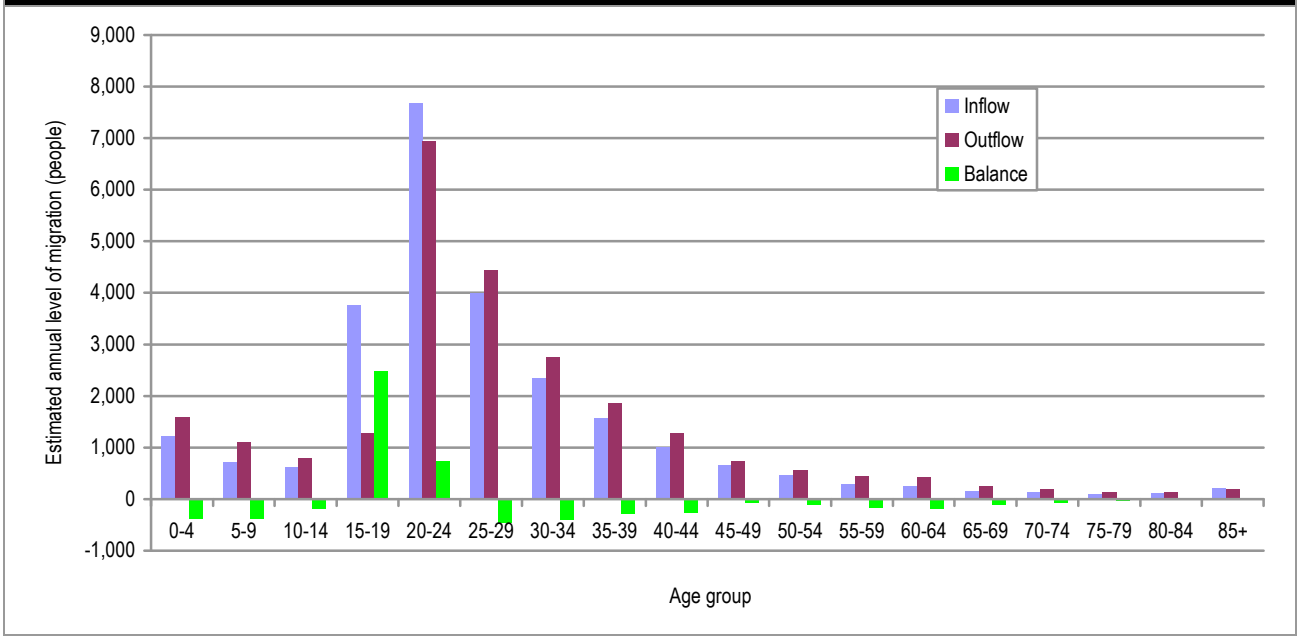
4.25 In looking at the profile of in and out-migrants (by age and sex) in Leicester and Leicestershire we have for consistency drawn on information provided by ONS about their migration assumptions in the 2008-based population projections. Data from the ONS projections has been taken and then adjusted to meet the gross and net migration levels required for analysis – to adjust the figures we have simply increased or decreased levels of in-migration until the net figure is met.

4.26 Appendix 6 provides full details about the age/sex specific migration assumptions used in each area for each time period and explains how these have been adjusted to accurately fit into our model (which runs for five year periods). For any individual area the profile of migrants is similar across all time periods with some differences occurring (particularly to older age groups) as the population structure changes over time. The projections mainly assume that there will be more older person migrants (both in and out), the further forward we move (linked to changes in the age structure of the population). Generally, levels of net migration for any age group do not vary much and so even keeping a constant age profile of migration throughout the period does not make much difference to the outputs.

4.27 In addition to adjustments to migration figures described above (to fit in with our model) we need to recognise that within each five year age band people of certain ages are more likely to move than others. The key group affected by this is the 15-19 age group where typically the vast majority of migrants are aged 18 or 19 (normally reflecting moves to educational establishments). We have therefore adjusted figures on the basis of ONS single year data to reflect a greater proportion of migrants in the 15-19 age group being aged 18 or 19. Similar adjustments are made to other age groups although differences are fairly minor.

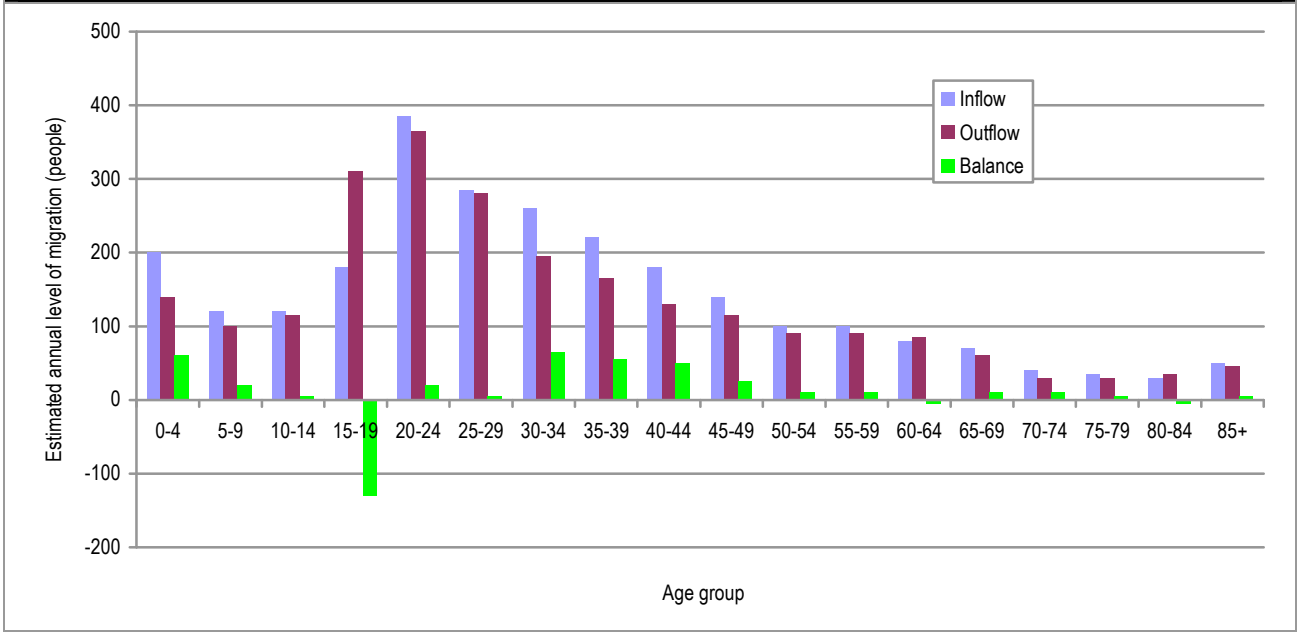
4.28 The two figures below show examples of the in- and out-migration patterns for Leicester and Melton. The same details for all other local authorities have been provided in Appendix 6 along with details about the adjustments made for modelling purposes described above. The data clearly shows different migration patterns for different areas with Leicester having a large level of net in-migration in the 15-19 age group and net out-migration in most other age groups – the complete opposite is seen in Melton.

Figure 4.11: Estimated annual level of net migration by five-year age band (2006-2031) - Leicester



Source: Derived from ONS 2008-based population projections

Figure 4.12: Estimated annual level of net migration by five-year age band (2006-2031) - Melton



Source: Derived from ONS 2008-based population projections

POPULATION PROJECTIONS: INITIAL TREND-BASED SCENARIO

4.29 We have now established a:

i) baseline population (for 2006),
ii) fertility rates
iii) mortality rates; and
iv) migration patterns.

4.30 From this information we now move towards projecting different population levels. At this stage we have carried out two initial projections – these are based on looking at trend based assumptions for migration over the past 10 years and also with no net migration. In addition to these we have reproduced the 2008-based ONS projections for comparison (which we have assumed would have a common 2006 base to our own projections). The initial projections are described below:

Figure 4.13: Description of Projections (Initial Scenarios) used for Population Modelling

Projection	Description
PROJ 1 (trend-based)	Trend based – linked to average migration over last 10 years
PROJ 2 (zero net-migration)	Zero net-migration (from 2009)
ONS 2008-Based	2008-based ONS population projections

4.31 The figures below summarise the results from each of the above projections (for 5 year periods up to 2031) for Leicester and Leicestershire separately (with a further table combining the data for the Leicester and Leicestershire area as a whole. The table shows that under our main trend based projection, PROJ 1, the population of Leicester is expected to rise by 27% to 2031. This represents growth in the population of around 79,000 people over the 25 years to 2031. The ONS projections are shown for comparison purposes. Both the zero net-migration and ONS data show similar levels of growth over the 25-year period although it is notable that the ONS figures show greater population growth in the early part of the projection.

Figure 4.14: Population Estimates 2006 to 2031 – Initial Scenarios - Leicester						
Projection	2006	2011	2016	2021	2026	2031
PROJ 1 (trend-based)	296,753 0.0%	309,874 4.4%	325,273 9.6%	342,326 15.4%	359,538 21.2%	376,082 26.7%
PROJ 2 (zero net-migration)	296,753 0.0%	309,814 4.4%	325,055 9.5%	341,927 15.2%	358,936 21.0%	375,263 26.5%
ONS 2008-Based	296,753 0.0%	315,436 6.3%	333,239 12.3%	349,305 17.7%	364,464 22.8%	378,404 27.5%

4.32 For Leicestershire the findings are somewhat different – under our trend-based assumptions the population is projected to grow by 17% over the next 25 years – this is slightly below the ONS figures which show growth of 19%. The zero net migration model however shows a much different picture to the trend based model with only modest population growth over the 25 year period of around 4%. This projection run also shows a population decline between 2026 and 2031.

Figure 4.15: Population Estimates 2006 to 2031 – Initial Scenarios - Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 1 (trend-based)	632,261 0.0%	654,863 3.6%	677,511 7.2%	700,058 10.7%	721,761 14.2%	740,813 17.2%
PROJ 2 (zero net-migration)	632,261 0.0%	648,163 2.5%	653,523 3.4%	657,334 4.0%	658,980 4.2%	657,270 4.0%
ONS 2008-Based	632,261 0.0%	655,464 3.7%	678,209 7.3%	703,367 11.2%	729,939 15.4%	752,394 19.0%

4.33 The table below shows the combined results for Leicester and Leicestershire. The data confirms that our trend-based projection comes out with a slightly lower population figure in 2031 than the ONS projections whilst the zero net-migration projection shows population growth of around half the ONS figures.

Figure 4.16: Population Estimates 2006 to 2031 – Initial Scenarios – Leicester and Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 1 (trend-based)	929,014 0.0%	964,737 3.8%	1,002,784 7.9%	1,042,384 12.2%	1,081,299 16.4%	1,116,895 20.2%
PROJ 2 (zero net-migration)	929,014 0.0%	957,977 3.1%	978,578 5.3%	999,261 7.6%	1,017,916 9.6%	1,032,533 11.1%
ONS 2008-Based	929,014 0.0%	970,900 4.5%	1,011,448 8.9%	1,052,672 13.3%	1,094,403 17.8%	1,130,798 21.7%

4.34 The figures below show the results of the initial demographic-driven projections in graphical form for each of Leicester, Leicestershire and the two areas combined. The initial projections indicate the importance of natural increase (a higher number of births than deaths) as a population driver in Leicester (given that all projections have low, no or negative net-migration assumptions and yet the population is projected to increase notably). Within Leicestershire they highlight the importance of migration as a driver of population change with the zero net-migration scenario showing very low population growth over the period.

4.35 The difference between our trend-based projections and the ONS projections (particularly evident in Leicestershire from 2021) is largely due to the different assumptions regarding migration. In Leicestershire the ONS project increasing net in-migration rates further into the future whereas we have held rates constant for our modelling. In Leicester our trend-based projection and the ONS figures converge. This is again due to migration assumptions which ONS project to be positive initially with net out-migration towards the middle and end of the period being studied. This is considered in more detail in Appendix 1.

Figure 4.17: Population Change, 2006 – 2031 – Initial Scenarios - Leicester

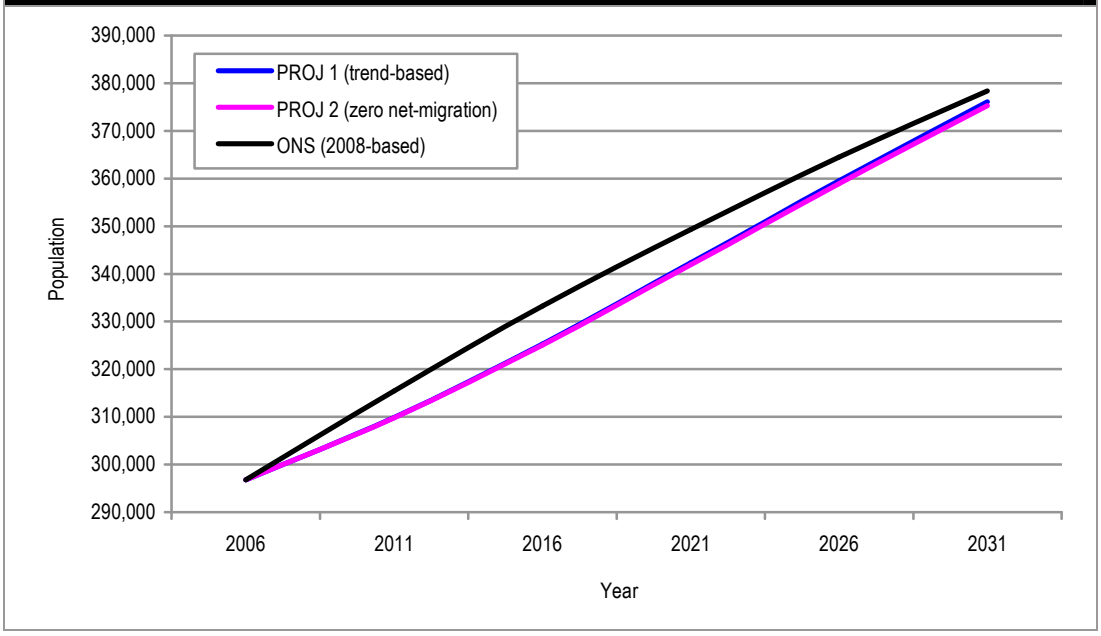


Figure 4.18: Population Change, 2006 – 2031 – Initial Scenarios - Leicestershire

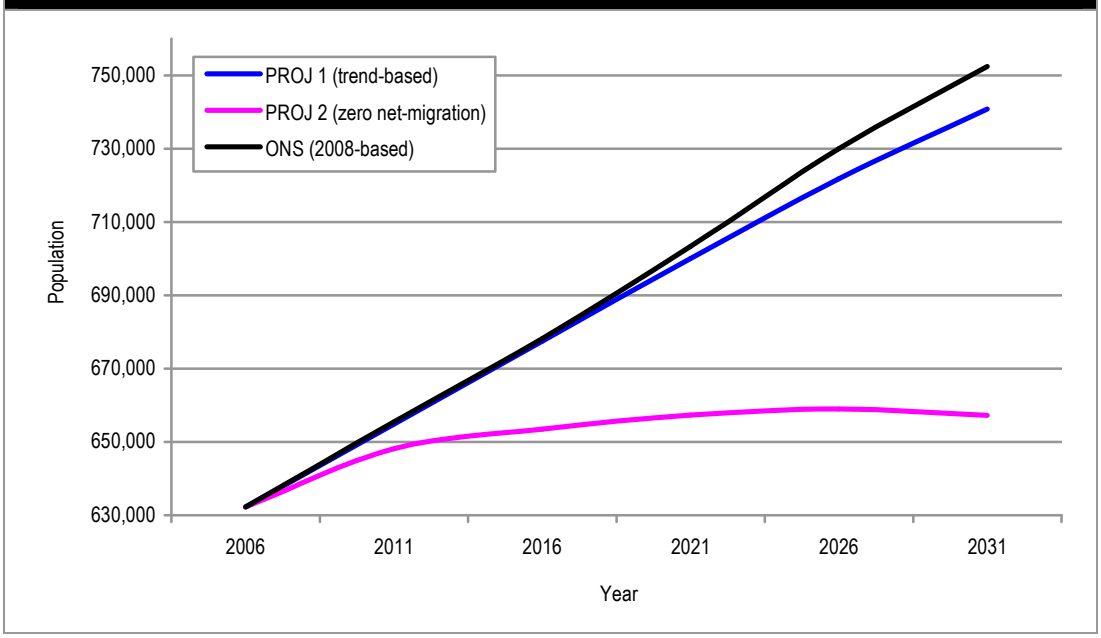
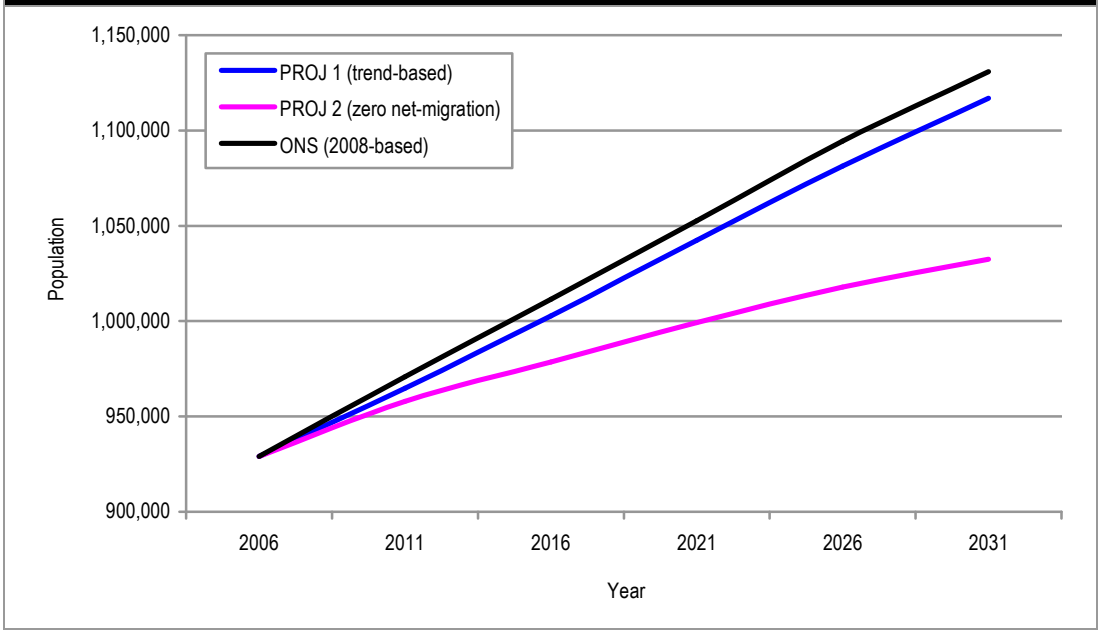


Figure 4.19: Population Change, 2006 – 2031 – Initial Scenarios – Leicester and Leicestershire



4.36 The projection data can also be provided for each of the eight local authorities and this is shown in the table below (figures for 2006 and 2031 only). The table shows that under trend based assumptions Leicester is expected to see the largest population growth, closely followed by Harborough and Charnwood. The lowest population growth is expected to be seen in Melton. The ONS 2008-based projections follow a similar pattern to our trend-based assumptions with again Leicester expected to see the highest growth and Melton the lowest.

4.37 The zero net-migration scenario shows much lower population growth in all areas (other than Leicester) with Melton showing a slight negative 'growth' in the period from 2006 to 2031.

Figure 4.20: Population Estimates 2006 to 2031 – Initial Scenarios (by local authority)

Projection	Area	2006	2031	Change	% change
PROJ 1 (trend-based)	Blaby	92,526	103,763	11,237	12.1%
	Charnwood	159,578	196,900	37,322	23.4%
	Harborough	81,103	101,830	20,727	25.6%
	Hinckley & Bosworth	103,216	113,917	10,701	10.4%
	Leicester	296,753	376,082	79,329	26.7%
	Melton	48,492	52,237	3,745	7.7%
	NW Leicestershire	89,261	104,537	15,276	17.1%
	Oadby & Wigston	58,085	67,629	9,544	16.4%
	Total (L & L)	929,014	1,116,895	187,881	20.2%
PROJ 2 (zero net-migration)	Blaby	92,526	97,475	4,949	5.3%
	Charnwood	159,578	173,670	14,092	8.8%
	Harborough	81,103	82,192	1,089	1.3%
	Hinckley & Bosworth	103,216	104,346	1,130	1.1%
	Leicester	296,753	375,263	78,510	26.5%
	Melton	48,492	48,300	-192	-0.4%
	NW Leicestershire	89,261	92,091	2,830	3.2%
	Oadby & Wigston	58,085	59,196	1,111	1.9%
	Total (L & L)	929,014	1,032,533	103,519	11.1%
ONS 2008-Based	Blaby	92,526	108,735	16,209	17.5%
	Charnwood	159,578	194,151	34,573	21.7%
	Harborough	81,103	99,297	18,194	22.4%
	Hinckley & Bosworth	103,216	121,590	18,374	17.8%
	Leicester	296,753	378,404	81,651	27.5%
	Melton	48,492	53,412	4,920	10.1%
	NW Leicestershire	89,261	105,954	16,693	18.7%
	Oadby & Wigston	58,085	69,255	11,170	19.2%
	Total (L & L)	929,014	1,130,798	201,784	21.7%

MAIN TREND-BASED PROJECTION, PROJ 1

4.38 The figures below shows population pyramids for 2006 and 2031 under our main trend based assumption (PROJ 1) for Leicester, Leicestershire and both areas combined.

4.39 The 'pyramids' for Leicester shows that the population profile is not expected to change significantly although there is considerable growth in the population for most age groups.

4.40 The pyramids for Leicestershire are rather different with the projection modelling suggesting a considerable increase in the older person population whilst younger age groups are only expected to see moderate increases (and in some cases decreases). In particular the oldest age group (85+) shows an increase from 12,439 people to 34,280. This particularly reflects improvements in life expectancy.

Figure 4.21: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based) – Leicester

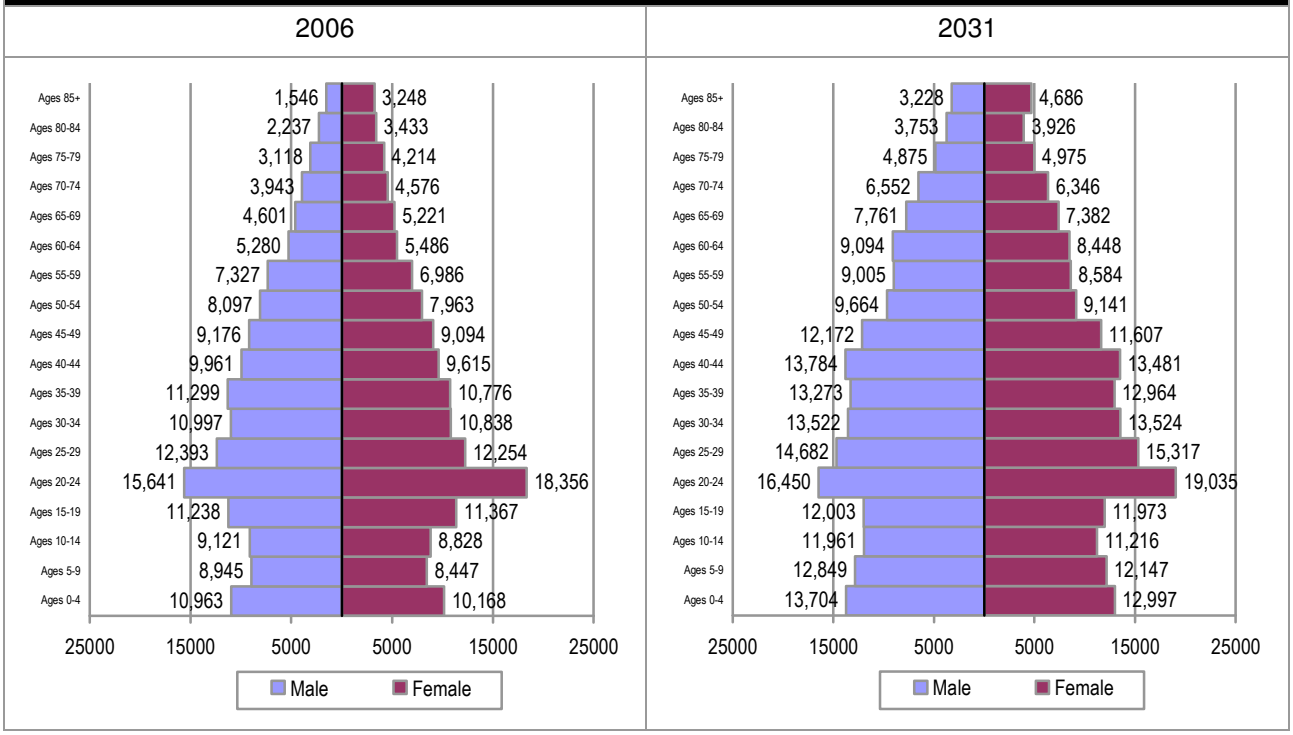
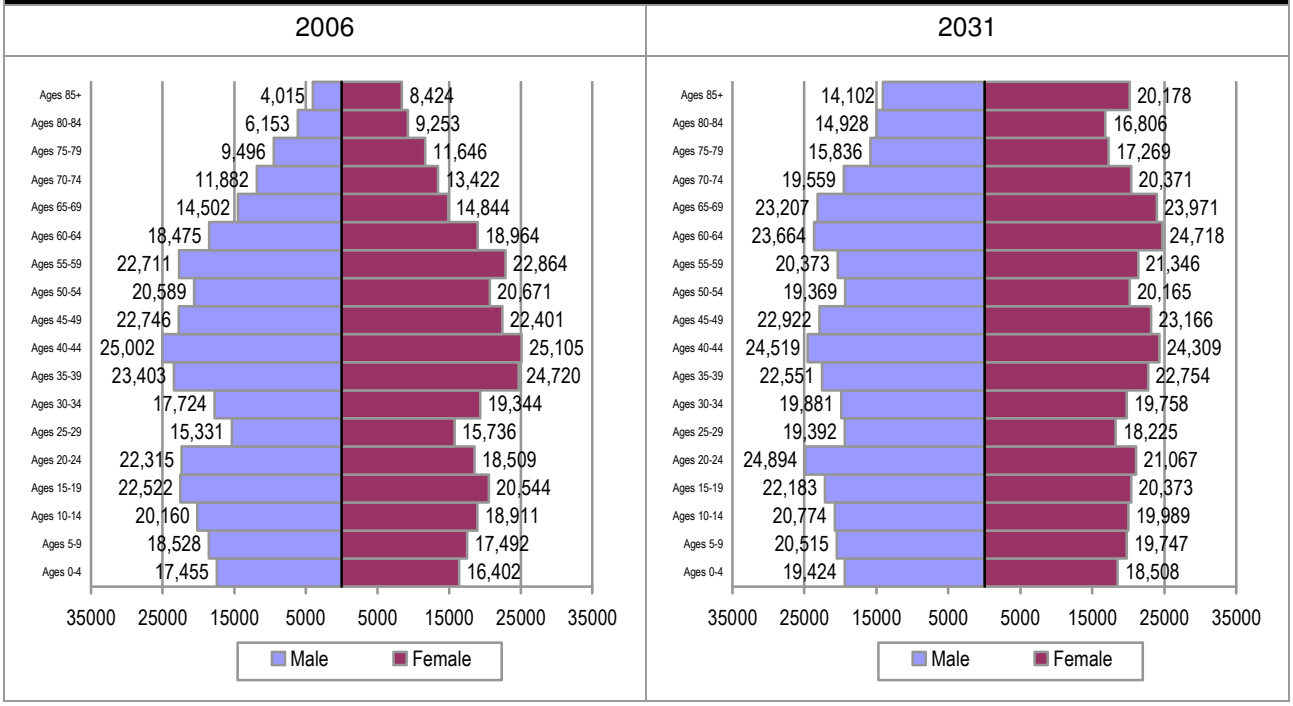
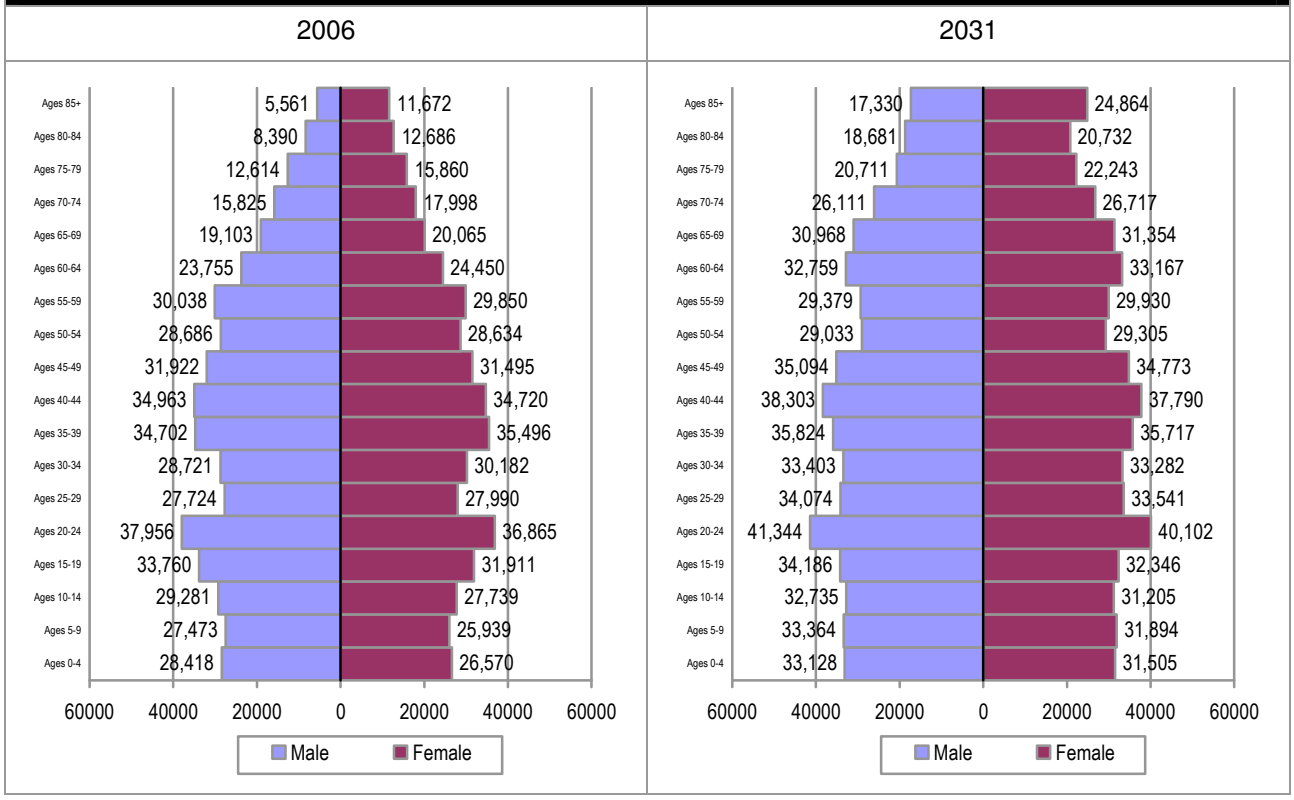


Figure 4.22: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based) – Leicestershire



4.41 The final set of pyramids shows the information for the whole of the study area. In particular the figure shows the ageing of the population with the number of people in older age bands increasing sharply.

Figure 4.23: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Leicester and Leicestershire



4.42 The figures below summarise the findings for key (15 year) age groups under PROJ 1 (trend-based) in each of Leicester, Leicestershire and for the whole study area.

4.43 In Leicester the largest growth is seen in the 60-74 age group (up 57%) although all age groups show a notable increase in population – this includes a projected increase in the population aged under 15 of 33% over 25 years.

4.44 In Leicestershire, the largest growth will be in people aged over 60. In 2031 it is estimated that there will be 234,609 people aged 60 and over. This is an increase of 93,533 from 2006, representing growth of 66%. The population aged 75 and over is projected to increase by an even greater proportion, 102%. Looking at the other end of the age spectrum we can see that there are projected to be around 9% more people aged under 15 with a similar level of increase seen for the 15-29 age group. The data also suggests a drop in the number of people aged 30-59. This finding is particularly important as this influences the size of the economically active population.

Figure 4.24: PROJ 1 (trend-based) population change 2006 to 2031 by five year age bands - Leicester				
Age group	Population 2006	Population 2031	Change in population	% change from 2006
Under 15	56,472	74,874	18,402	32.6%
15-29	81,249	89,460	8,211	10.1%
30-44	63,486	80,548	17,062	26.9%
45-59	48,643	60,173	11,530	23.7%
60-74	29,107	45,584	16,477	56.6%
75+	17,796	25,443	7,647	43.0%
Total	296,753	376,082	79,329	26.7%

Figure 4.25: PROJ 1 (trend-based) population change 2006 to 2031 by five year age bands - Leicestershire				
Age group	Population 2006	Population 2031	Change in population	% change from 2006
Under 15	108,948	118,958	10,010	9.2%
15-29	114,957	126,134	11,177	9.7%
30-44	135,298	133,771	-1,527	-1.1%
45-59	131,982	127,341	-4,641	-3.5%
60-74	92,089	135,491	43,402	47.1%
75+	48,987	99,118	50,131	102.3%
Total	632,261	740,813	108,552	17.2%

Figure 4.26: PROJ 1 (trend-based) population change 2006 to 2031 by five year age bands – Leicester and Leicestershire				
Age group	Population 2006	Population 2031	Change in population	% change from 2006
Under 15	165,420	193,832	28,412	17.2%
15-29	196,206	215,594	19,388	9.9%
30-44	198,784	214,319	15,535	7.8%
45-59	180,625	187,514	6,889	3.8%
60-74	121,196	181,075	59,879	49.4%
75+	66,783	124,561	57,778	86.5%
Total	929,014	1,116,895	187,881	20.2%

4.45 The figures below shows the percentage changes for each five year age group in Leicester, Leicestershire and for the two areas combined. Whilst there are no obvious patterns in Leicester the information for Leicestershire shows a very stark trend. In particular is the increase in the population aged 85 and over (up 176%) which may have implications for future housing delivery as many of this group may require some form of specialist housing. The increases in the population of older people reflect a number of factors including improvements in life expectancy as well as the ageing of the existing population profile. Over the next 20 years many of those borne in the post-war 'baby boom' are due to reach retirement age.

4.46 The significant difference in population dynamics is evident by comparison of the figures for each of Leicester and Leicestershire separately. Given the proportion of the total Leicester and Leicestershire population which is within the County, rather than the City, the figure for Leicester and Leicestershire as a whole also shows considerable ageing of the population.

Figure 4.27: Forecast Population Change by Age Group 2006 – 2031 (PROJ 1 – trend-based) - Leicester

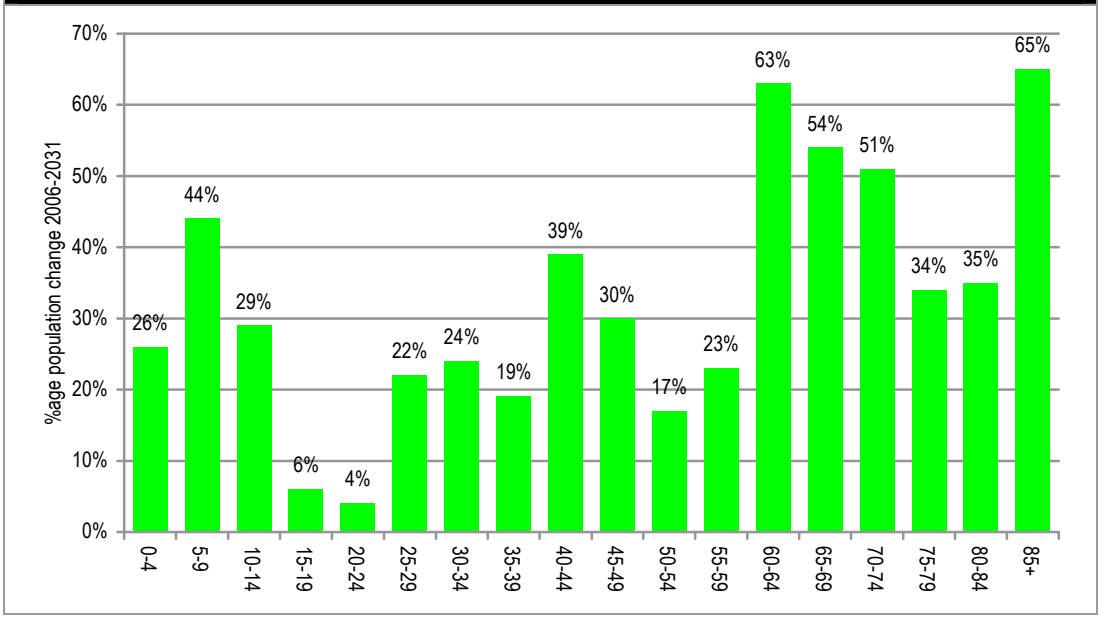


Figure 4.28: Forecast Population Change by Age Group 2006 – 2031 (PROJ 1 – trend-based) - Leicestershire

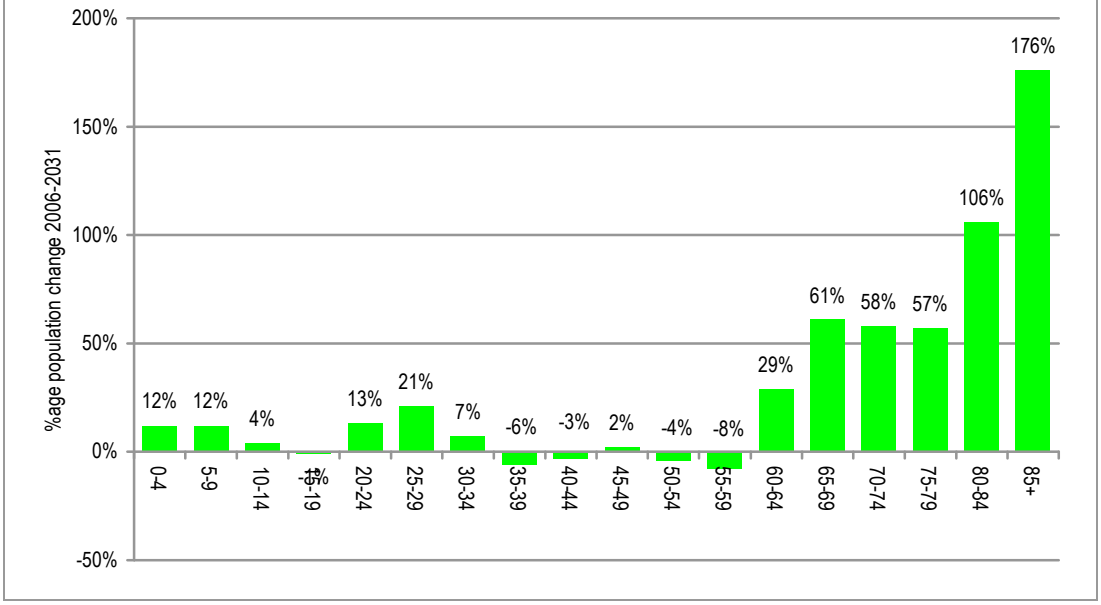
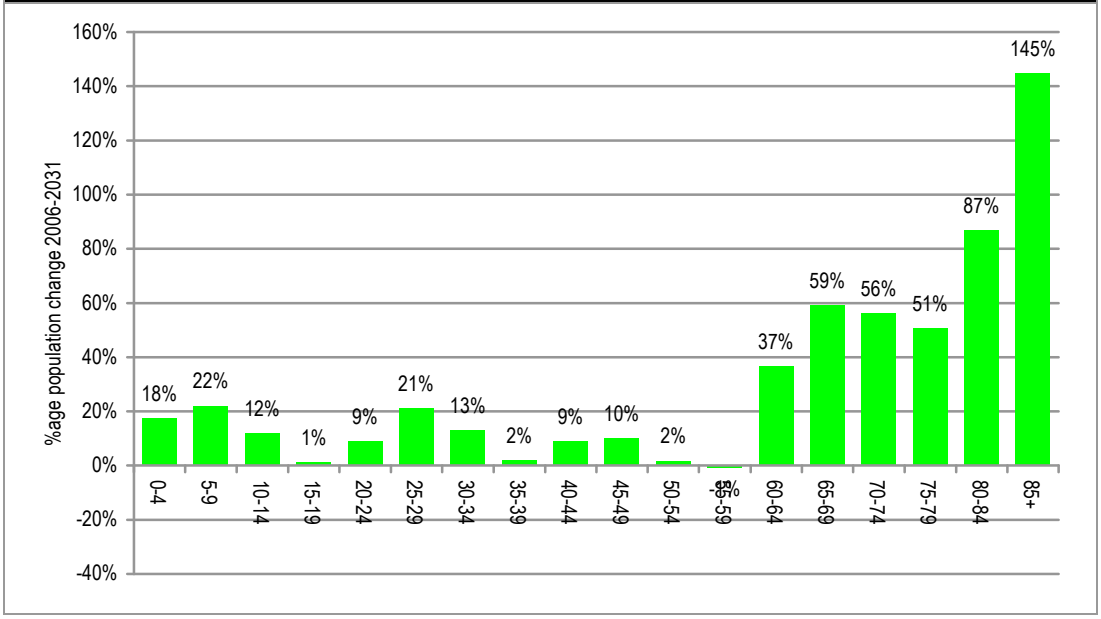


Figure 4.29: Forecast Population Change by Age Group 2006 – 2031 (PROJ 1 – trend-based) – Leicester and Leicestershire



5. Economic-Driven Population Projections

5.1 The previous section ran a number of demographic projections looking at how the population would change under different assumptions (mainly about migration patterns). It is however important to consider the impact the changing demographic profile will have on the working age population and in particular the number of people who are working. It is also important to understand how economic trends might impact on future migration to and from the local authorities in Leicester and Leicestershire.

5.2 In this section we therefore consider the relationship between the population and the number of people in employment (including self-employment). We assess changes in the working-age population which would arise from the two initial projections (PROJ 1, trend based & PROJ 2 –zero net-migration). We then consider a number of potential scenarios for rates of employment growth to 2031, and consider what growth in the labour force would be necessary to support this. This is used to adjust levels of in-migration, recognising that employment growth will influence housing demand. Three economic-based projections are developed: PROJ 3 considers what level of population growth is required to maintain employment at 2006 levels. PROJ 4 considers population growth necessary to support 5% net growth in employment (total jobs) between 2006-31, while PROJ 5 considers the population growth necessary to support 10% growth in employment.

5.3 The process is fairly straightforward and involves converting population data (by age and sex) into estimates of the working population by applying employment rates. The process can also work backwards (i.e. to calculate the required population to support a working population of a particular size). In this section we have looked at the linkage between population and the workforce by both applying employment rates to population estimates and also estimating populations required for different workforce changes.

Figure 5.1: Overview of Economic-Driven projection methodology

5.4 Three economic-driven projections are developed, based on maintaining the working population (PROJ 3) to 2006 levels, and growth of employment by 5% between 2006-31 (PROJ 4) and by 10% over this period (PROJ 5).

5.5 The economic-driven projections take account of the recent economic recession and, implicitly, the impact of this on housing need/demand; as well as considering what level of population growth (and growth in the labour force) moving forward will be needed to meet economic demand. It should be noted however that economic growth, in terms of growth in output or wealth creation, can occur without growth in employment (this is often termed jobless growth).

EMPLOYMENT RATES

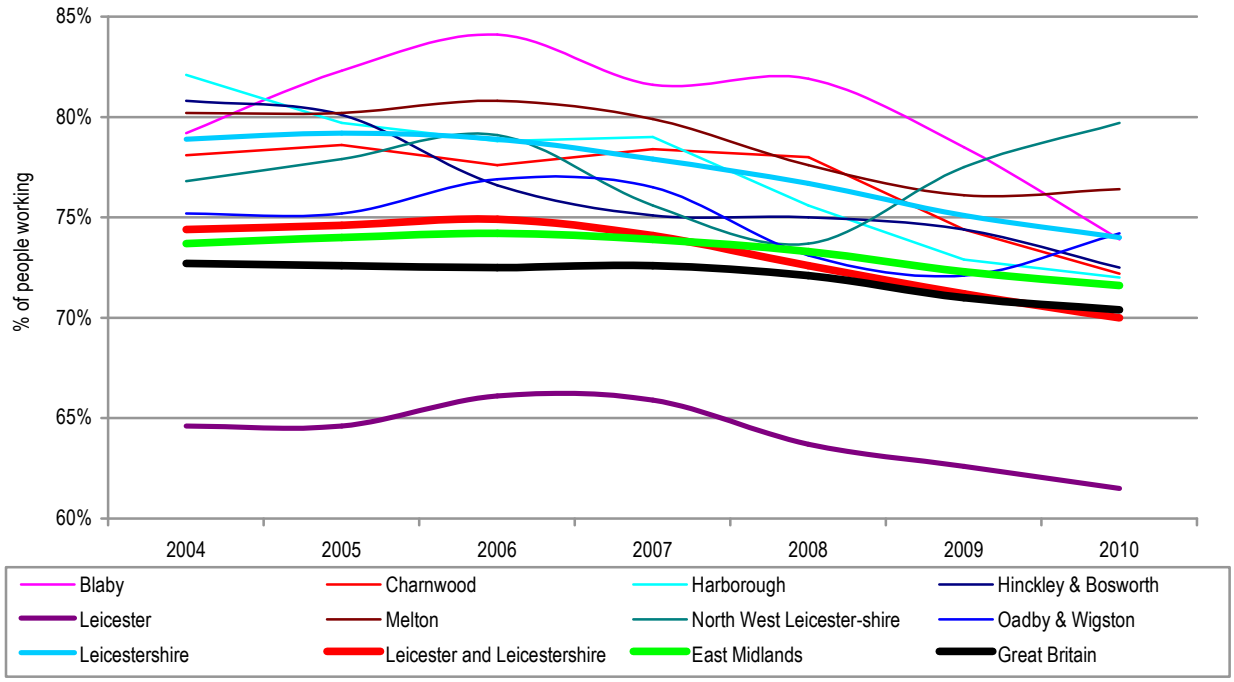
5.6 It is necessary first to consider the demographic make-up of the current labour force in Leicester and Leicestershire. The table and figure below summarise information about employment rates (the proportion of people of working-age in work) and also add averages for Leicestershire, the whole study area, the East Midlands and Great Britain. The data shows that generally patterns of working have followed national and regional patterns (albeit with significant year on year variation for individual local authorities). In all areas other than Leicester figures are consistently above regional and national averages suggesting that there may be limited scope to significantly increase rates of working in the future.

Figure 5.2: Proportion of Population Working (% of Working Age, 2004 to 2010)

Area	2004	2005	2006	2007	2008	2009	2010	Average
Blaby	79.2%	82.3%	84.1%	81.6%	81.9%	78.5%	73.9%	80.2%
Charnwood	78.1%	78.6%	77.6%	78.4%	78.0%	74.4%	72.2%	76.8%
Harborough	82.1%	79.7%	78.8%	79.0%	75.6%	72.9%	72.0%	77.2%
Hinckley & Bosworth	80.8%	80.1%	76.6%	75.1%	75.0%	74.4%	72.5%	76.3%
Leicester	64.6%	64.6%	66.1%	65.9%	63.7%	62.6%	61.5%	64.1%
Melton	80.2%	80.2%	80.8%	79.9%	77.6%	76.1%	76.4%	78.7%
North West Leicestershire	76.8%	77.9%	79.1%	75.6%	73.7%	77.5%	79.7%	77.2%
Oadby & Wigston	75.2%	75.2%	76.9%	76.5%	73.1%	72.1%	74.2%	74.7%
Leicestershire	78.9%	79.2%	78.9%	77.9%	76.7%	75.1%	74.0%	77.2%
Leicester & Leicestershire	74.4%	74.6%	74.9%	74.1%	72.6%	71.2%	70.0%	73.1%
East Midlands	73.7%	74.0%	74.2%	73.9%	73.3%	72.3%	71.6%	73.3%
Great Britain	72.7%	72.6%	72.5%	72.6%	72.1%	71.0%	70.4%	72.0%

Source: NOMIS/Annual Population Survey

Figure 5.3: Proportion of Population Working (2004 to 2010)



Source: NOMIS/Annual Population Survey

5.7 Employment rates have been rather variable over time and this may in part be due to the fact that the data is drawn from a sample survey. In making estimates of a baseline position for 2006 (the start date of our projection) we have therefore looked at the information for the five-year period around 2006 (i.e. 2004 to 2008 in the table/figure above) and also 2001 Census data which gives us a more detailed profile about age/sex specific employment rates.

5.8 The table below shows our estimates of the number of people resident in each area who were in employment and the employment rate in 2006 - this includes self-employment. The figures are resident-based and do not consider the locations where people are employed.

Figure 5.4: Estimated number of people working and employment rate (2006)

Area	Number of people in employment	Employment rate (working as % of 16/64)
Blaby	49,697	81.5%
Charnwood	83,921	76.4%
Harborough	42,401	79.2%
Hinckley & Bosworth	53,700	78.2%
Leicester	132,496	65.4%
Melton	26,483	80.6%
North West Leicestershire	46,720	77.5%
Oadby & Wigston	29,629	77.1%
TOTAL	465,048	74.2%

Source: Derived from 2001 Census and Annual Population Survey

5.9 For our projections we want to estimate the number of people who are working by both age and sex and we have therefore drawn on information from the 2001 Census to give us a steer on the likely proportions of different groups who work and how this might change as the population changes over time. Appendix 6 provides full tabulations of our age/sex specific employment rates. In projecting forward employment rates there are a number of points to be made (reflected in our detailed figures in the appendix).

5.10 Firstly, we recognise that the economic downturn has had an impact on employment levels and rates both nationally and locally and have reflected this in our modelling. Using Labour Force Survey data (LFS) it is estimated that between 2006 and 2010 male employment rates dropped by about 4% and female rates by 2%. These figures are broadly consistent with those found from the Annual Population Survey.

5.11 For our modelling we have therefore modelled employment rates to drop by the above proportions from 2006 to 2011. In the period from 2011 to 2016 it is assumed that employment rates will recover to reach 2006 levels by mid-2016. After 2016 it has been assumed that employment rates are constant.

5.12 Secondly, our analysis recognises that changes in pensionable age are likely to see increase in the workforce for some age/sex groups. We have therefore factored in pensionable age changes to our age/sex specific figures in line with when these changes are expected to happen. Full data is again provided in Appendix 6. The key changes are as follows:

- The State Pension age for women born after 6th April 1950 will increase gradually to 65 between 2010 and 2020;
- From 6th April 2020 the State Pension Age will be 65 for both men and women; and
- State Pension Age for men and women will increase from 65 to 66 between April 2024 and April 2026.

5.13 The Government is currently consulting on further changes to pensionable ages[4]. Any further reforms to the State Pension age will impact on the assumptions within the economic-led projections on the relationship between population and labour supply.

[4] DWP (April 2011) *A State Pension for the 21st Century – Consultation*

ECONOMIC IMPLICATIONS OF INITIAL SCENARIOS

5.14 The tables below show the estimated number of people working under each of our two main initial projections (trend-based (PROJ 1) and zero net migration (PROJ 2)) for each of Leicester, Leicestershire and both areas combined. The data shows that in Leicester under the trend based assumptions (PROJ 1) the number of people working is projected to increase by 31,361 from 2006 to 2031. This is an increase of 1,254 people working per annum. In Leicestershire, the projected employment increase is more modest with an overall growth over 25 years of around 22,100 – representing 886 more people in employment per year on average.

Figure 5.5: Estimated Number of People Working 2006 to 2031 (PROJ 1 – trend-based) - Leicester

Year	Number of People Working	Change in Working	Annual Change	Cumulative Change
2006	132,496	-	-	-
2011	135,998	3,502	700	3,502
2016	146,809	10,811	2,162	14,313
2021	152,202	5,393	1,079	19,706
2026	157,721	5,519	1,104	25,225
2031	163,857	6,137	1,227	31,361
Total/average		31,361	1,254	

Figure 5.6: Estimated Number of People Working 2006 to 2031 (PROJ 1 – trend-based) - Leicestershire

Year	Number of People Working	Change in Working	Annual Change	Cumulative Change
2006	332,552	-	-	-
2011	328,676	-3,875	-775	-3,875
2016	345,673	16,996	3,399	13,121
2021	347,859	2,187	437	15,308
2026	350,764	2,905	581	18,212
2031	354,695	3,931	786	22,143
Total/average		22,143	886	

Figure 5.7: Estimated Number of People Working 2006 to 2031 (PROJ 1 – trend-based) – Leicester and Leicestershire				
Year	Number of People Working	Change in Working	Annual Change	Cumulative Change
2006	465,048	-	-	-
2011	464,674	-374	-75	-374
2016	492,482	27,807	5,561	27,434
2021	500,061	7,580	1,516	35,014
2026	508,485	8,424	1,685	43,437
2031	518,552	10,067	2,013	53,505
Total/average		53,505	2,140	

5.15 The figures derived under PROJ 2 (zero net migration) show a slightly lower increase in the number of people working in Leicester. Across Leicestershire however the difference from trend-based projection is stark with an estimated drop in the number of people living in Leicestershire who are working expected to drop by around 25,600 over the 25-year period to 2031 (1,024 per annum).

Figure 5.8: Estimated Number of People Working 2006 to 2031 (PROJ 2 – zero net-migration) - Leicester				
Year	Number of People Working	Change in Working	Annual Change	Cumulative Change
2006	132,496			
2011	135,966	3,469	694	3,469
2016	146,689	10,723	2,145	14,193
2021	151,991	5,302	1,060	19,494
2026	157,417	5,426	1,085	24,921
2031	163,458	6,041	1,208	30,962
Total/average		30,962	1,238	

Figure 5.9: Estimated Number of People Working 2006 to 2031 (PROJ 2 – zero net-migration) - Leicestershire				
Year	Number of People Working	Change in Working	Annual Change	Cumulative Change
2006	332,552			
2011	324,647	-7,904	-1,581	-7,904
2016	330,887	6,240	1,248	-1,664
2021	322,166	-8,721	-1,744	-10,385
2026	314,131	-8,036	-1,607	-18,421
2031	306,942	-7,188	-1,438	-25,609
Total/average		-25,609	-1,024	

Figure 5.10: Estimated Number of People Working 2006 to 2031 (PROJ 2 – zero net-migration) – Leicester & Leicestershire				
Year	Number of People Working	Change in Working	Annual Change	Cumulative Change
2006	465,048			
2011	460,613	-4,435	-887	-4,435
2016	477,576	16,964	3,393	12,529
2021	474,157	-3,419	-684	9,109
2026	471,547	-2,610	-522	6,500
2031	470,400	-1,147	-229	5,352
Total/average		5,352	214	

5.16 Figures for growth in the labour force under each of these projections can also be provided for each local authority and this is shown in the table below. The table shows that for the trend based projection there are a number of authorities (particularly Leicester and Charnwood) that see notable labour force growth whilst both Hinckley and Bosworth and Melton show a decline in the number of people working.

5.17 Under zero net-migration assumptions (as shown in Figure 5.11) the data shows a decline in employment in all areas other than Leicester. The biggest drop would be expected to be in Hinckley and Bosworth with around 14% less people working in 2031 than 2006.

Figure 5.11: Estimated Number of People Working 2006 to 2031 – Initial Scenarios (by local authority)					
Projection	Area	2006	2031	Change	% change
PROJ 1 (trend-based)	Blaby	49,697	50,306	609	1.2%
	Charnwood	83,921	96,283	12,362	14.7%
	Harborough	42,401	47,424	5,023	11.8%
	Hinckley & Bosworth	53,700	51,518	-2,182	-4.1%
	Leicester	132,496	163,857	31,361	23.7%
	Melton	26,483	25,605	-878	-3.3%
	NW Leicestershire	46,720	50,111	3,390	7.3%
	Oadby & Wigston	29,629	33,448	3,819	12.9%
	Total (L & L)	465,048	518,552	53,505	11.5%
PROJ 2 (zero net-migration)	Blaby	49,697	46,717	-2,980	-6.0%
	Charnwood	83,921	82,227	-1,694	-2.0%
	Harborough	42,401	36,759	-5,643	-13.3%
	Hinckley & Bosworth	53,700	46,220	-7,480	-13.9%
	Leicester	132,496	163,458	30,962	23.4%
	Melton	26,483	23,355	-3,128	-11.8%
	NW Leicestershire	46,720	43,147	-3,573	-7.6%
	Oadby & Wigston	29,629	28,517	-1,112	-3.8%
	Total (L & L)	465,048	470,400	5,352	1.2%

ZERO EMPLOYMENT GROWTH SCENARIO

5.18 As well as looking at the employment numbers related to a range of different migration driven scenarios we have looked at the number of people working and the population profile related to an additional scenario of zero employment growth. Under this scenario (PROJ 3) we are looking to identify the implications for population growth if the number of people who are working was kept the same as in 2006.

5.19 For each local authority area we have set migration levels so that employment levels are constant for each five-year period of the projection from 2011. . Over the first five years of the projection, 2006-11, our modelling takes account of the economic downturn. If this adjustment was not made, the projection would show high population growth in the period 2006 to 2011 and a low figure for 2011 to 2016.

Figure 5.12: Description of additional Migration Lead Projection	
Projection	Description
PROJ 3 (zero employment growth)	Zero Employment Growth – to assess the population change (and migration) required to maintain 2006 employment levels

5.20 Under PROJ 3 (zero employment growth) it can be seen that to maintain the size of the current workforce in Leicester would only require a small change in population. Over the 25 year period, the projection estimates that a population increase of around 5% would be required to keep employment levels constant. In the case of Leicestershire there would however need to be a more substantial increase in the population. This is due to lower levels of natural change and the ageing of the population which result in a lower proportion of people of working age.

5.21 It is estimated that to maintain the workforce at 2006 levels in Leicestershire would require an increase in the population of around 11% to 2031 – an increase of about 70,700 people (or 2,800 per annum). All the percentage figures shown in the figure below are cumulative increases from 2006.

Figure 5.13: Population Estimates 2006 to 2031 (PROJ 3 – Zero Employment Growth)						
Area	2006	2011	2016	2021	2026	2031
Leicester	296,753 0.0%	305,167 2.8%	308,157 3.8%	311,036 4.8%	312,317 5.2%	311,805 5.1%
Leicestershire	632,261 0.0%	651,857 3.1%	666,754 5.5%	680,878 7.7%	693,455 9.7%	702,951 11.2%
Total (L & L)	929,014 0.0%	957,024 3.0%	974,911 4.9%	991,914 6.8%	1,005,773 8.3%	1,014,757 9.2%

5.22 As with other projections, this information can also be broken down for each of the individual local authorities (as shown in the table below). The table shows that to maintain the current workforce would require greatest population growth (in proportionate terms) in Harborough and Hinckley & Bosworth. Lowest population growth would be required in Leicester and Oadby & Wigston.

Figure 5.14: Estimated Population 2006 and 2031 – Zero employment growth scenario (by local authority)

Projection	Area	2006	2031	Change	% change
PROJ 3 (zero employment growth)	Blaby	92,526	102,695	10,169	11.0%
	Charnwood	159,578	176,469	16,891	10.6%
	Harborough	81,103	92,582	11,479	14.2%
	Hinckley & Bosworth	103,216	117,859	14,643	14.2%
	Leicester	296,753	311,805	15,052	5.1%
	Melton	48,492	53,774	5,282	10.9%
	NW Leicestershire	89,261	98,477	9,216	10.3%
	Oadby & Wigston	58,085	61,097	3,012	5.2%
	Total (L & L)	929,014	1,014,757	85,743	9.2%

5.23 We now consider the potential implications for population arising from economic factors; specifically we have looked at the population change required to support increases in the number of people working of both 5% and 10% in the period from 2006 to 2031.

Employment Growth Projections

5.24 As we have explained, a key question which has arisen in the course of this project is what level of net migration we might expect to see in Leicester and Leicestershire. The initial trend based projections indicate that future population growth is particularly sensitive to assumptions regarding future levels of net migration. Migration to, from and within Leicester and Leicestershire is driven by a range of factors, including employment opportunities and its quality of life offer.

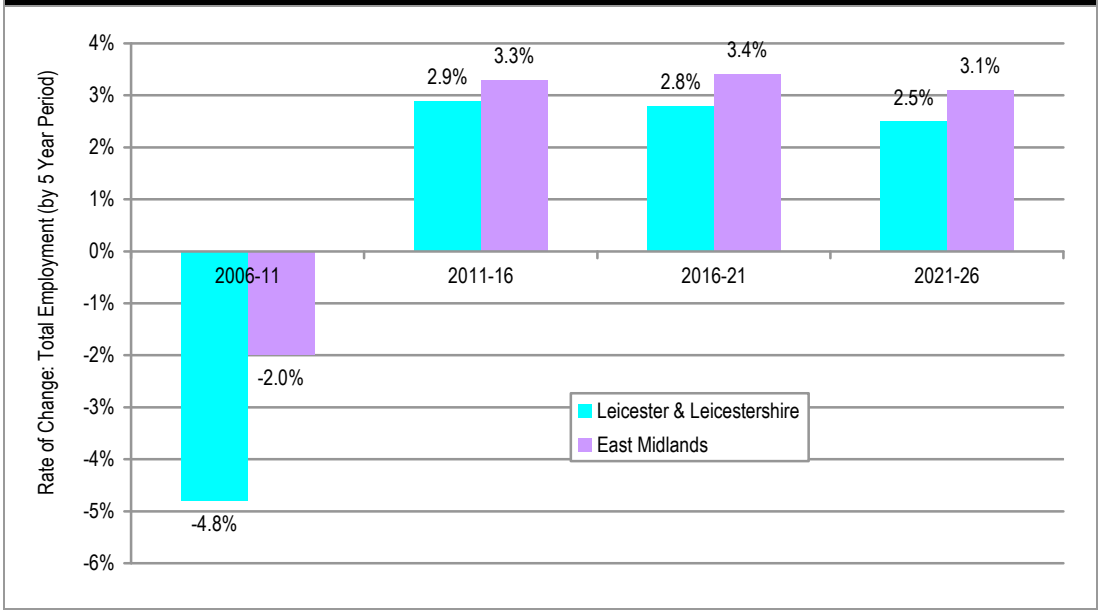
5.25 While recognising that the reasons why people move to and within the study area vary, we consider that economic performance will be a key driver of trends. We have sought to examine what level of migration the economy might be able to support, aiming to deliver a sustainable future for the area where there is balanced growth in housing and employment.

5.26 The purpose of this project has not been to undertake a detailed assessment of economic performance and potential at a District level. It is anticipated that the evidence base which individual local authorities develop as part of the evidence base for their respective Local Development Framework Core Strategies will provide a detailed local assessment of economic growth potential. This can then inform interpretation of the economic-driven scenarios presented herein.

5.27 To provide a consistent assessment of housing requirements associated with possible levels of employment growth, two further employment-led projections have been developed. The first, PROJ 4, models 5% employment growth in each local authority over the 2006-31 period. The second, PROJ 5, models a more aspirational growth of 10% in employment over this period. These relate to growth in total jobs over 25 year projection period (2006-31) used for all of the projections.

5.28 East Midlands Development Agency has supplied projections for employment growth (workplace-based total employment) in Leicester & Leicestershire between 2006-26. These are based on econometric forecasts produced by Experian and dated November 2010. It has been necessary to extend the forecasts of total employment to 2031. We have projected employment growth between 2026-31 based on the average rate of forecast growth between 2016 and 2026. On this basis we estimate baseline employment growth of 5.9% over the 2006-31 period across the Leicester and Leicestershire Housing Market. Growth rates however vary by five year period as shown in the figure below.

Figure 5.15: Projected Employment Growth



Source: Experian ©

5.29 At the time of writing there is a considerable degree of uncertainty regarding how strongly the economy will recover from the recent economic recession and how employment will grow. This heightens the degree of uncertainty regarding any predictive work. It is against this context that the two economic scenarios have been developed; with PROJ 4 modelling a 'baseline' level of growth moderately below a November 2010 projection taking account of more recent economic performance. The national economy posted negative growth in the last quarter of 2010 and national forecasts have been revised downwards since. PROJ 5 tests an aspirational scenario for much more positive economic performance relative to the baseline. This recognises the potential for economic intervention, led by the Leicester & Leicestershire Local Enterprise Partnership, to support improved performance.

Figure 5.16: Description of economically driven projection	
Projection	Description
PROJ 4 (5% employment growth)	5% Employment Growth over 25-year period
PROJ 5 (10% employment growth)	10% Employment Growth over 25-year period

5.30 The tables below indicate the projected population change under these scenarios. The percentage figures are a cumulative increase from 2006.

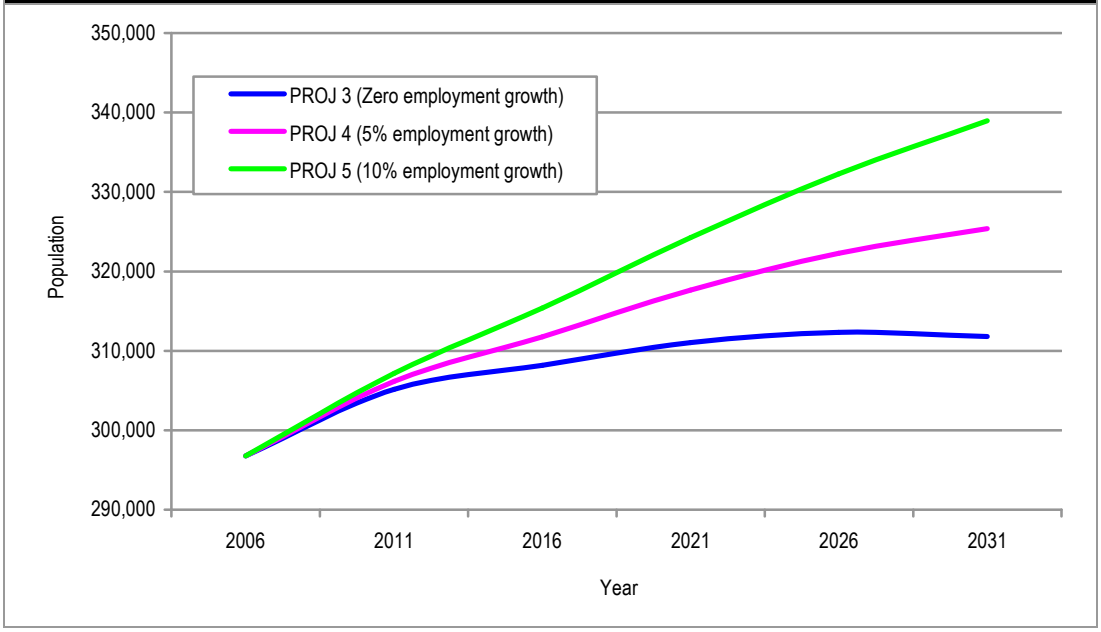
Figure 5.17: Population estimates 2006 to 2031 for 5% and 10% Employment growth (PROJ 4 and PROJ 5) - Leicester						
Projection	2006	2011	2016	2021	2026	2031
PROJ 4 (5% employment growth)	296,753 0.0%	306,161 3.2%	311,772 5.1%	317,646 7.0%	322,292 8.6%	325,384 9.6%
PROJ 5 (10% employment growth)	296,753 0.0%	307,156 3.5%	315,388 6.3%	324,256 9.3%	332,268 12.0%	338,962 14.2%

Figure 5.18: Population estimates 2006 to 2031 for 5% and 10% Employment growth (PROJ 4 and PROJ 5) - Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 4 (5% employment growth)	632,261 0.0%	654,188 3.5%	675,104 6.8%	695,755 10.0%	715,311 13.1%	732,020 15.8%
PROJ 5 (10% employment growth)	632,261 0.0%	656,519 3.8%	683,454 8.1%	710,633 12.4%	737,167 16.6%	761,089 20.4%

Figure 5.19: Population estimates 2006 to 2031 for 5% and 10% Employment growth (PROJ 4 and PROJ 5) – Leicester and Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 4 (5% employment growth)	929,014 0.0%	960,349 3.4%	986,876 6.2%	1,013,401 9.1%	1,037,603 11.7%	1,057,404 13.8%
PROJ 5 (10% employment growth)	929,014 0.0%	963,674 3.7%	998,842 7.5%	1,034,888 11.4%	1,069,434 15.1%	1,100,051 18.4%

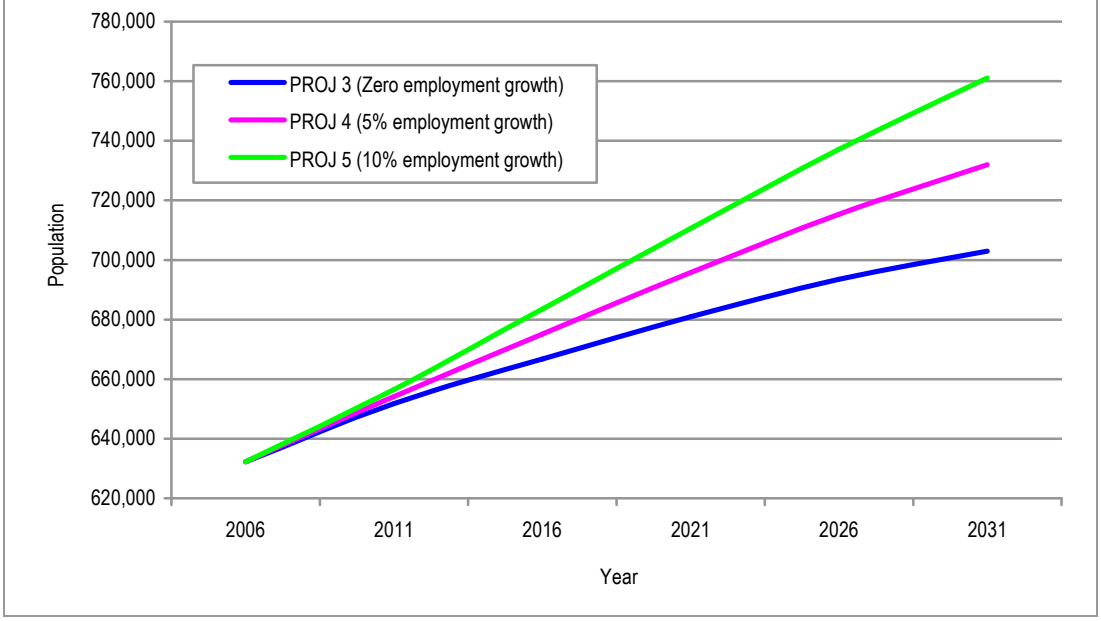
5.31 The figure below provides a graphical illustration of population growth in Leicester for each of the economic-driven scenarios.

Figure 5.20: Population Change, 2006 – 2031 – Three Scenarios - Leicester



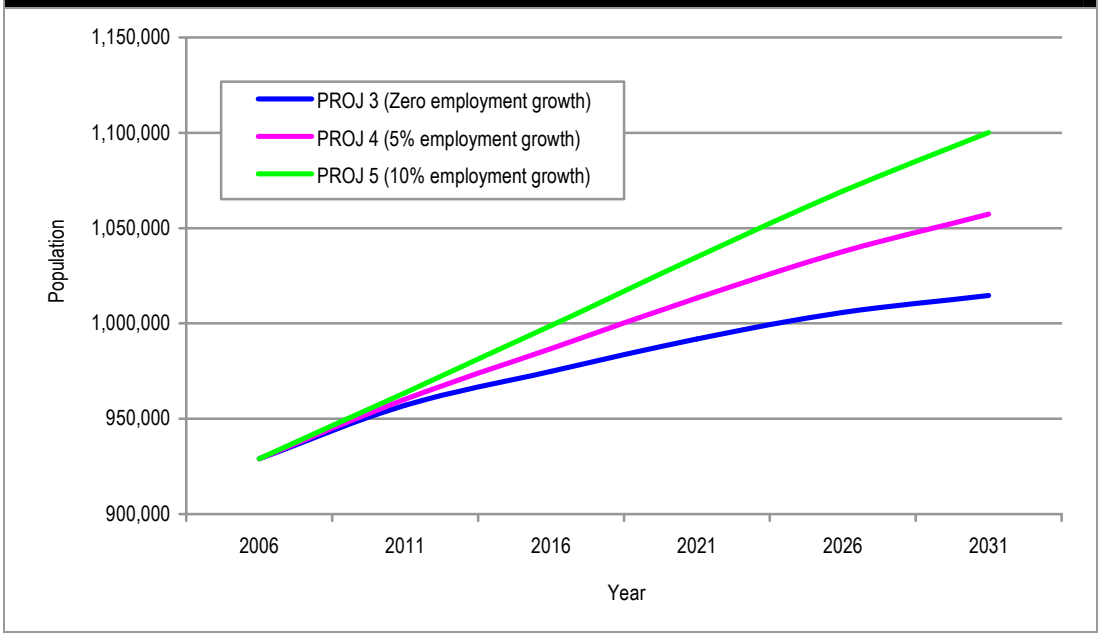
5.32 The data shows that to achieve the employment growth linked to PROJ 4 (5% over the 25 year period) would require an increase in the population in Leicester by 10% over the 25 year period to 2031 whilst this scenario for Leicestershire shows stronger population growth of 16%. The second of the two economic projections (PROJ 5) shows that to achieve 10% growth in employment a higher level of population growth is necessary, with population growth in Leicester of 14% between 2006-31 and growth of 20% in Leicestershire.

Figure 5.21: Population Change, 2006 – 2031 – Three Scenarios - Leicestershire



5.33 Across Leicester and Leicestershire together PROJ 4 results in 14% population growth and PROJ 5 18% population growth over the 2006-31 period.

Figure 5.22: Population Change, 2006 – 2031 – Three Scenarios – Leicester and Leicestershire



5.34 Figures for individual authorities under each of PROJ 4 and PROJ 5 (5% and 10% employment growth) are summarised in the tables below. The figures show considerable variation for different areas with population growth ranging from 9.5% (Oadby & Wigston) to 19.0% (Harborough) in the case of PROJ 4 (5% employment growth) and from 13.9%% (Oadby & Wigston) to 23.8% (Harborough) in the case of PROJ 5 (10% employment growth).

5.35 The level of population growth which is required to sustain 5% and 10% growth in employment over the 25 year period to 2031 in each of the authorities is influenced by the population structure and demographic dynamics in the area. Typically stronger growth in population is required to support these levels of employment growth in those authorities with an older age structure. PROJ 5 sees higher levels of in-migration of people of working-age which help to support employment growth.

Figure 5.23: Population Estimates 2006 to 2031 – PROJ 4 and PROJ 5 (by local authority)					
Projection	Area	2006	2031	Change	% change
PROJ 4 (5% employment growth)	Blaby	92,526	107,049	14,523	15.7%
	Charnwood	159,578	183,403	23,825	14.9%
	Harborough	81,103	96,485	15,382	19.0%
	Hinckley & Bosworth	103,216	122,708	19,492	18.9%
	Leicester	296,753	325,384	28,631	9.6%
	Melton	48,492	56,091	7,599	15.7%
	NW Leicestershire	89,261	102,653	13,392	15.0%
	Oadby & Wigston	58,085	63,631	5,546	9.5%
	Total (L & L)	929,014	1,057,404	128,390	13.8%
PROJ 5 (10% employment growth)	Blaby	92,526	111,403	18,877	20.4%
	Charnwood	159,578	190,339	30,761	19.3%
	Harborough	81,103	100,389	19,286	23.8%
	Hinckley & Bosworth	103,216	127,558	24,342	23.6%
	Leicester	296,753	338,962	42,209	14.2%
	Melton	48,492	58,408	9,916	20.4%
	NW Leicestershire	89,261	106,827	17,566	19.7%
	Oadby & Wigston	58,085	66,164	8,079	13.9%
	Total (L & L)	929,014	1,100,051	171,037	18.4%

5.36 Specific figures for the number of additional jobs which these scenarios support within each local authority are set out in Appendix 3.

6. Household (and Housing) Growth Projections

6.1 Having estimated the population size and the age/sex profile of the population the next step in the process is to convert this information in to estimates of the number of households in each area. To do this we use the concept of headship rates. For the purpose of this analysis we have used information contained in the 2008-based CLG household projections about the relationship between the total population in an age group and the number of household reference persons (HRPs) in that age group. This method is described in more detail below. In addition we have looked at the implications of keeping headship rates at constant (2006) levels.

METHODOLOGY

6.2 Headship rates can be described in their most simple terms as the proportion of people in different age groups who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)). For the purposes of our analysis we have used data in the CLG 2008-based household projections. These take males to be the default HRP in cases where the household is headed by a couple.

6.3 This approach taken in the national household projections, which we have built on, is different to that taken in the Census where defining the HRP is based on economic activity and age (ahead of sex). For example, in a household with only one adult (e.g. a lone parent household) the HRP is taken as that person. In a household with more than one adult (e.g. a couple household) the HRP is chosen on the basis of their economic activity (in the priority order of full-time job, part-time job, unemployed, retired, other). If both (or all) people have the same economic activity, the HRP is defined as the elder of the two, or if they are the same age, the first member on the form.

6.4 The table below shows headship rates derived from the 2008-based CLG projections for each of the key periods of 2006 and 2031 for the whole of Leicester and Leicestershire (data for individual authorities is given in Appendix 6). The data shows that whilst most headship rates remain at a fairly constant level over time there are a number of groups where notable changes are projected to occur (both in an upward and downward direction and particularly in relation to females). Generally, headship rates are projected to increase in the future; this is consistent with trends in the increasing number of single person households seen over the past few years.

6.5 A sensitivity testing exercise has also been carried out to study the impact of projected changes in headship rates and this can be found in Appendix 4.

6.6 Headship rates have been calculated on the basis of the relationship between households and the total population including the institutional population (e.g. students in halls of residence). This is because the projections carried out are inclusive of all sectors of the population. This approach when compared with an approach excluding the institutional population will make no significant difference to the outputs regarding household and housing numbers (i.e. excluding students/institutional populations would show higher headship rates but these would be applied to a lower population).

Figure 6.1: Estimated Headship Rates by Age and Sex (2006 and 2031) – Leicester and Leicestershire

Age group	Male		Female	
	2006	2031	2006	2031
Ages 15-19	2.5%	2.8%	3.0%	3.4%
Ages 20-24	26.2%	27.5%	15.4%	18.3%
Ages 25-29	58.4%	55.4%	22.4%	27.6%
Ages 30-34	77.4%	75.9%	25.0%	34.0%
Ages 35-39	87.5%	87.7%	23.3%	31.4%
Ages 40-44	90.7%	91.7%	21.7%	26.2%
Ages 45-49	92.1%	91.5%	20.8%	24.0%
Ages 50-54	94.4%	92.1%	20.1%	24.4%
Ages 55-59	96.2%	95.0%	20.4%	26.0%
Ages 60-64	97.3%	96.5%	23.5%	27.1%
Ages 65-69	97.8%	97.5%	29.3%	30.9%
Ages 70-74	97.6%	97.7%	38.6%	35.0%
Ages 75-79	96.4%	96.9%	50.1%	39.0%
Ages 80-84	93.3%	95.4%	60.4%	47.9%
Ages 85+	84.3%	89.3%	62.1%	55.0%

Source: CLG 2008-based household projections

6.7 When applying these headship rates to our baseline (2006) population we derive an estimated number of households of 374,643 (117,569 in Leicester and 257,074 in Leicestershire).

FINDINGS FOR MAIN PROJECTIONS

6.8 By applying these headship rates we find the following household estimates under our principal projections (PROJ 1 and PROJ 2 – trend-based and zero net-migration). The data shows that under our initial trend based projection (PROJ 1) in Leicester that there will be an additional 1,777 households per annum in the period 2006 to 2031 (44,425 in total). The zero net migration model shows a very similar level of household growth over this period.

6.9 For Leicestershire we see that under trend-based assumptions the number of households is expected to increase by around 2,620 per annum with a figure of around half this value shown with zero net migration.

Figure 6.2: Estimated Household Growth - Trend Based and Zero Net Migration Projections - Leicester						
Year	PROJ 1 (trend-based)			PROJ 2 (zero net-migration)		
	Total households	Change in households	Cumulative change	Total households	Change in households	Cumulative change
2006	117,569	-	-	117,569	-	-
2011	124,379	6,810	6,810	124,357	6,788	6,788
2016	133,384	9,006	15,815	133,300	8,944	15,731
2021	142,885	9,501	25,316	142,727	9,426	25,158
2026	152,334	9,448	34,765	152,091	9,364	34,522
2031	161,994	9,661	44,425	161,664	9,572	44,095
Average PA		1,777			1,764	

Figure 6.3: Estimated Household Growth - Trend Based and Zero Net Migration Projections - Leicestershire						
Year	PROJ 1 (trend-based)			PROJ 2 (zero net-migration)		
	Total households	Change in households	Cumulative change	Total households	Change in households	Cumulative change
2006	257,074	-	-	257,074	-	-
2011	268,574	11,500	11,500	266,199	9,125	9,125
2016	283,240	14,666	26,166	274,400	8,201	17,326
2021	297,302	14,062	40,228	280,947	6,547	23,873
2026	309,933	12,631	52,859	285,465	4,519	28,391
2031	322,637	12,704	65,563	289,656	4,191	32,582
Average PA		2,623			1,303	

Figure 6.4: Estimated Household Growth - Trend Based and Zero Net Migration Projections – Leicester and Leicestershire						
Year	PROJ 1 (trend-based)			PROJ 2 (zero net-migration)		
	Total households	Change in households	Cumulative change	Total households	Change in households	Cumulative change
2006	374,643	-	-	374,643	-	-
2011	392,953	18,310	18,310	390,555	15,912	15,912
2016	416,625	23,672	41,982	407,700	17,145	33,057
2021	440,187	23,563	65,544	423,673	15,973	49,030
2026	462,267	22,079	87,624	437,556	13,883	62,913
2031	484,632	22,365	109,989	451,320	13,764	76,677
Average PA		4,400			3,067	

6.10 This information has also been provided for each individual local authority area (as shown in the table below). Under trend-based assumptions the data shows strongest household growth in Leicester, closely followed by Harborough and Charnwood. With zero net migration assumptions all areas (with the exception of Leicester) show much lower household growth figures with both Melton and Hinckley & Bosworth having overall household growth of below 10% over the 25 year period to 2031.

Figure 6.5: Household Estimates 2006 to 2031 – PROJ 1 and PROJ 2 (by local authority)						
Projection	Area	2006	2031	Change	Change Per Annum	% change
PROJ 1 (trend-based)	Blaby	37,614	44,544	6,930	277	18.4%
	Charnwood	63,050	84,624	21,574	863	34.2%
	Harborough	33,190	44,820	11,630	465	35.0%
	Hinckley & Bosworth	43,198	51,187	7,989	320	18.5%
	Leicester	117,569	161,994	44,425	1777	37.8%
	Melton	20,287	23,586	3,299	132	16.3%
	NW Leicestershire	37,184	45,771	8,587	343	23.1%
	Oadby & Wigston	22,551	28,105	5,554	222	24.6%
	Total (L & L)	374,643	484,632	109,989	4,400	29.4%
PROJ 2 (zero net-migration)	Blaby	37,614	42,170	4,556	182	12.1%
	Charnwood	63,050	74,998	11,948	478	18.9%
	Harborough	33,190	37,233	4,043	162	12.2%
	Hinckley & Bosworth	43,198	47,351	4,153	166	9.6%
	Leicester	117,569	161,664	44,095	1764	37.5%
	Melton	20,287	22,039	1,752	70	8.6%
	NW Leicestershire	37,184	40,955	3,771	151	10.1%
	Oadby & Wigston	22,551	24,910	2,359	94	10.5%
	Total (L & L)	374,643	451,320	76,677	3,067	20.5%

ESTIMATED HOUSEHOLD GROWTH UNDER CLG PROJECTIONS

6.11 Below we have provided an analysis of the growth in households estimated under the 2008-based CLG household projections (for Leicester, Leicestershire and the whole study area). The data shows that these projections expect an increase in households of around 44,000 over the period from 2006 to 2031 – 1,759 per annum – in Leicester and 69,000 – 2,757 per annum – in Leicestershire. The CLG figure for Leicester is slightly lower than our trend-based estimate (PROJ 1) whilst the CLG figure for Leicestershire is slightly higher than our trend-based position. The overall total for Leicester and Leicestershire is 112,900; slightly higher than our trend-based estimate (PROJ 1).

Figure 6.6: Estimated Household Growth under National Household Projections									
Year	Leicester			Leicestershire			Leicester & Leicestershire		
	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change
2006	117,570	-	-	257,074	-	-	374,644		
2011	126,587	9,017	9,017	269,403	12,329	12,329	395,990	21,346	21,346
2016	135,896	9,309	18,326	283,781	14,378	26,707	419,677	23,687	45,033
2021	144,727	8,831	27,157	298,481	14,700	41,407	443,208	23,531	68,564
2026	153,216	8,489	35,646	312,729	14,248	55,655	465,945	22,737	91,301
2031	161,540	8,324	43,970	326,004	13,275	68,930	487,544	21,599	112,900
Average PA		1,759			2,757			4,516	

6.12 Again this information can be provided for each local authority area and is shown below. The data shows that strongest household growth is expected in Leicester (37.4% over 25 years) with the lowest growth expected to be in Melton (18.4%).

Figure 6.7: Household Estimates 2006 to 2031 – CLG 2008-based projections (by local authority)

Projection	Area	2006	2031	Change	Change Per Annum	% change
CLG 2008-based household projections	Blaby	37,614	46,512	8,898	356	23.7%
	Charnwood	63,050	82,155	19,105	764	30.3%
	Harborough	33,190	44,128	10,938	438	33.0%
	Hinckley & Bosworth	43,198	54,536	11,338	454	26.2%
	Leicester	117,570	161,540	43,970	1759	37.4%
	Melton	20,287	24,029	3,742	150	18.4%
	NW Leicestershire	37,184	46,375	9,191	368	24.7%
	Oadby & Wigston	22,551	28,269	5,718	229	25.4%
	Total (L & L)	374,644	487,544	112,900	4,516	30.1%

ECONOMIC PROJECTIONS

6.13 As well as estimating the number of households from our trend based projections we can apply the same process to our economically driven projections (PROJ 3 to PROJ 5). Household estimates from each of these are shown below.

6.14 The data shows that under PROJ 3 (zero employment growth) the number of households in Leicester is expected to rise from 117,569 in 2006 to 136,043 in 2031 – an average of 739 households per annum. This is significantly lower than either our trend-based projection or the zero net migration projection. The figure is also significantly below figures from the CLG Household Projections. The overall household growth shown in the period from 2006 to 2031 in our two economic projections (PROJ 4 and PROJ 5) is also significantly below trend-based (and other) projection figures. This reflects the City's population structure that is much younger than other local authorities in the County, supporting growth in the population of working-age.

6.15 For Leicestershire the zero employment growth projection shows an annual household increase of 2,019 – about 50,500 over the 25 year period. This is below our demographic trend-based estimate (2,623 per annum) but above the figures derived from the zero net migration model (1,303 per annum). The two alternative economic growth projections both show a higher level of household growth (2478 per annum to support 5% employment growth and 2936 per annum to support 10% employment growth). PROJ 1, the trend-based projection, falls between these.

Figure 6.8: Estimated Household Growth under PROJ 3 to PROJ 5 – Leicester									
Year	PROJ 3 (zero employment growth)			PROJ 4 (5% employment growth)			PROJ 5 (10% employment growth)		
	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change
2006	117,569	-	-	117,569	-	-	117,569	-	-
2011	122,645	5,076	5,076	123,011	5,442	5,442	123,377	5,808	5,808
2016	126,800	4,155	9,231	128,191	5,180	10,622	129,582	6,205	12,013
2021	130,427	3,627	12,858	133,059	4,868	15,490	135,691	6,109	18,122
2026	133,307	2,880	15,738	137,326	4,267	19,757	141,345	5,655	23,776
2031	136,043	2,736	18,474	141,525	4,199	23,956	147,007	5,662	29,438
Average PA		739			958			1,178	

Figure 6.9: Estimated Household Growth under PROJ 3 to PROJ 5 – Leicestershire									
Year	PROJ 3 (zero employment growth)			PROJ 4 (5% employment growth)			PROJ 5 (10% employment growth)		
	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change
2006	257,074	-	-	257,074	-	-	257,074	-	-
2011	267,586	10,512	10,512	268,421	11,347	11,347	269,256	12,182	12,182
2016	279,452	11,866	22,378	282,548	14,128	25,474	285,645	16,390	28,571
2021	290,067	10,615	32,993	295,775	13,227	38,701	301,483	15,838	44,409
2026	298,885	8,818	41,811	307,401	11,626	50,327	315,917	14,434	58,843
2031	307,558	8,673	50,484	319,014	11,613	61,940	330,469	14,552	73,395
Average PA		2,019			2,478			2,936	

Figure 6.10: Estimated Household Growth under PROJ 3 to PROJ 5 – Leicester and Leicestershire									
Year	PROJ 3 (zero employment growth)			PROJ 4 (5% employment growth)			PROJ 5 (10% employment growth)		
	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change	Total hhs	Change in hhs	Cum. change
2006	374,643	-	-	374,643	-	-	374,643	-	-
2011	390,231	15,588	15,588	391,432	16,789	16,789	392,633	17,990	17,990
2016	406,252	16,021	31,609	410,739	19,308	36,096	415,227	22,594	40,584
2021	420,494	14,242	45,851	428,834	18,094	54,191	437,173	21,946	62,530
2026	432,192	11,698	57,549	444,727	15,893	70,084	457,263	20,089	82,620
2031	443,601	11,409	68,958	460,539	15,812	85,896	477,477	20,214	102,834
Average PA		2,758			3,436			4,113	

6.16 The table below shows all of these figures by local authority area. The data shows that there is variation depending on which projection is being studied although Leicester and Oadby & Wigston consistently show lower levels of household growth with Harborough in particular showing high growth under all three scenarios.

Figure 6.11: Household Estimates 2006 to 2031 – PROJ 3 to PROJ 5 (by local authority)						
Projection	Area	2006	2031	Change	Change Per Annum	% change
PROJ 3 (zero employment growth)	Blaby	37,614	44,141	6,527	261	17.4%
	Charnwood	63,050	76,158	13,108	524	20.8%
	Harborough	33,190	41,247	8,057	322	24.3%
	Hinckley & Bosworth	43,198	52,767	9,569	383	22.2%
	Leicester	117,569	136,043	18,474	739	15.7%
	Melton	20,287	24,189	3,902	156	19.2%
	NW Leicestershire	37,184	43,426	6,242	250	16.8%
	Oadby & Wigston	22,551	25,631	3,080	123	13.7%
	Total (L & L)	374,643	443,601	68,958	2,758	18.4%
PROJ 4 (5% employment growth)	Blaby	37,614	45,785	8,171	327	21.7%
	Charnwood	63,050	79,031	15,981	639	25.3%
	Harborough	33,190	42,755	9,565	383	28.8%
	Hinckley & Bosworth	43,198	54,710	11,512	460	26.7%
	Leicester	117,569	141,525	23,956	958	20.4%
	Melton	20,287	25,100	4,813	193	23.7%
	NW Leicestershire	37,184	45,042	7,858	314	21.1%
	Oadby & Wigston	22,551	26,590	4,039	162	17.9%
	Total (L & L)	374,643	460,539	85,896	3,436	22.9%
PROJ 5 (10% employment growth)	Blaby	37,614	47,429	9,815	393	26.1%
	Charnwood	63,050	81,905	18,855	754	29.9%
	Harborough	33,190	44,264	11,074	443	33.4%
	Hinckley & Bosworth	43,198	56,655	13,457	538	31.2%
	Leicester	117,569	147,007	29,438	1,178	25.0%
	Melton	20,287	26,010	5,723	229	28.2%
	NW Leicestershire	37,184	46,657	9,473	379	25.5%
	Oadby & Wigston	22,551	27,550	4,999	200	22.2%
	Total (L & L)	374,643	477,477	102,834	4,113	27.4%

CONVERSION OF HOUSEHOLDS TO DWELLINGS

6.17 There are a number of potential factors which may affect the conversion of numbers of households into numbers of dwellings, including concealed households, shared dwellings, demolitions, population of communal establishments etc.

6.18 We have reviewed these range of factors and considered the appropriateness of adjusting numbers to account for a number of these influences. As part of the RSS process, the Panel reviewed these issues. It concluded that it was not appropriate to include an allowance for concealed households as the CLG projections included an allowance for the number of current concealed households which may form in the future. We consider that this situation remains the case, albeit that the latest CLG projections do not include publication of forecasts of concealed households. Evidence from research undertaken by the NHPAU has indicated that the effect of affordability pressures may be to delay household formation, but in the longer-term the impact is minimal.

6.19 The Panel Report also concluded that the housing requirement should not include an allowance for the re-use of existing vacant properties as there is limited potential for local authorities to influence vacancy and any target could be regarded as no more than aspirational. We concur with this view. We do however consider it appropriate to include an allowance for vacancy in new-build stock to facilitate turnover of properties. We have therefore added a vacancy allowance of 2.5% to all of the above figures to make estimated housing requirements with figures shown in the table below[5].

6.20 In regard to demolitions, the figures provided are for **net** housing requirements to 2031. In regard to annual monitoring, regard should be had to demolitions to calculate net completions. In policy-making, any significant demolitions programmes should be considered in identifying land requirements for housing provision. We do not however regard demolitions as appropriate to include within calculations of housing requirements at this point.

6.21 The population of communal establishments include students in halls, armed forces personnel, prisons and elderly people in care homes. To a significant extent these factors are included within the projections as they are reflected within headship rates we have used. We consider that the particular issue in regard to projections would be that they should take account of known interventions, such as expansion or closure of prisons or bases, or expansion of university numbers where this is being planned for. This is considered further below.

6.22 On the basis of the information currently available, we consider that robust dwelling projections should be based on household growth with an allowance for vacancy within new-built stock.

[5] The vacancy allowance is to allow for turnover in new stock. It does not take account of the potential for bringing existing vacant properties back into use. The allowance is based on evidence of vacancy in English regions in April 2010 which indicates a 2.8% vacancy rate in the East Midlands but rates of between 2.2 – 2.4% in Southern Regions. A 2.5% vacancy allowance is considered suitable to allow for turnover but is below existing rates in the region which are influenced by areas of unpopular / low demand housing.

Figure 6.12: Estimated annual housing numbers with 2.5% vacancy allowance (to 2031)						
Projection	Leicester		Leicestershire		Leicester & Leicestershire	
	Household growth	Requirement with vacancy allowance	Household growth	Requirement with vacancy allowance	Household growth	Requirement with vacancy allowance
PROJ 1 (trend-based)	1,777	1,821	2,623	2,688	4,400	4,510
PROJ 2 (zero net-migration)	1,764	1,808	1,303	1,336	3,067	3,144
CLG 2008-based household projections	1,759	1,803	2,757	2,826	4,516	4,629
PROJ 3 (zero employment growth)	739	757	2,019	2,070	2,758	2,827
PROJ 4 (5% employment growth	958	982	2,478	2,540	3,436	3,522
PROJ 5 (10% employment growth)	1,178	1,207	2,936	3,009	4,113	4,216

STUDENT POPULATIONS

6.23 The demographic projections which have been developed are for the total population and households in each of the local authorities. In Leicester, Oadby and Wigston and Charnwood population dynamics are influenced by the student population. While part of the student population in these authorities will be housed within the general housing market, part of the student population will live in halls of residence and form part of the 'institutional population.' Oadby and Wigston contains a number of Leicester University's student halls.

6.24 National household projections prepared by CLG include separate projections for the institutional population and the private household population. Our methodology differs from this in that our projections are based on the total population. In developing household and housing projections we have therefore recalculated headship rates on the basis of the total population.

6.25 As part of this project we have contacted each of the three universities in Leicester & Leicestershire – the University of Leicester, De Montfort University and Loughborough University, to explore whether expected future changes in student numbers or delivery of student accommodation might provide a basis for tweaking the projections' assumption on migration or headship rates.

6.26 Each of the three Universities has outlined that there is a considerable degree of uncertainty regarding future student numbers given the changes to university funding and tuition fees which the Coalition Government is implementing. The University of Leicester indicated that they expect student numbers to be relatively flat. De Montfort indicated that it is difficult to predict future student numbers. Loughborough University again described a position of uncertainty, but provided projections which indicated that student numbers to fall by around 10% over the next three academic years to 2013-14, with a reduction of about 160 students. However none of the Universities have projections of student numbers over the longer-term. Our demographic projections are looking over the period to 2031.

6.27 We have also sought to consider plans for additional student accommodation and the impact which this might have on the numbers of students falling within the private household population. Leicester University suggested that they are not currently investing heavily in student accommodation or needed more private sector accommodation to any significant degree to accommodate their student population. The University is however reviewing its accommodation strategy. De Montfort University stated that it is not developing its own accommodation or at present entering into further accommodation agreements with private providers. However planning records in Leicester indicate that there is substantial development by private providers of additional student accommodation in the development pipeline.

6.28 Given the uncertainty regarding student numbers and delivery of additional student accommodation in Leicester, and the lack of projections of long-term changes in the student population, albeit that these are entirely understandable against the changes to University funding, we do not consider that there is sufficient robust evidence to justify any amendments to the demographic projections for either Leicester or Oadby and Wigston.

6.29 In regard to Loughborough, information from the University suggests that over the period to 2013-14 the number of students housed within the private rented sector in Loughborough might fall, potentially by 260 persons, as a result of anticipated changes in student numbers and refurbishment of the University's student accommodation. This may have an implication on the supply/demand balance within the town's private rented sector, although this may be tempered by dynamics within the wider housing market including potentially continuing restrictions to the availability of mortgage finance which are likely to support demand within the private rented sector. As with Leicester and Oadby & Wigston there is not sufficient evidence to suggest that changes in the student market will have a fundamental impact on future housing requirements in Charnwood (particularly over the timescale of these projections to 2031).

COMBINED RESULTS

6.30 The headline results of all of the scenarios in terms of housing requirements (i.e. including a vacancy allowance) and employment numbers between 2006 and 2031 are summarised below for Leicester, Leicestershire and all individual local authorities. In all cases the housing numbers take account of the 2.5% vacancy allowance.

Leicester

Figure 6.13: Summary of projections 2006 to 2031 – annual - Leicester						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	3,173	1.1%	1,821	1.5%	1,254	0.9%
PROJ 2 (zero net-migration)	3,140	1.1%	1,808	1.5%	1,238	0.9%
PROJ 3 (zero employment growth)	602	0.2%	757	0.6%	0	0.0%
PROJ 4 (5% employment growth	1,145	0.4%	982	0.8%	265	0.2%
PROJ 5 (10% employment growth)	1,688	0.6%	1,207	1.0%	530	0.4%

Figure 6.14: Summary of projections 2006 to 2031 – total - Leicester						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	79,329	26.7%	45,536	37.8%	31,361	23.7%
PROJ 2 (zero net-migration)	78,510	26.5%	45,197	37.5%	30,962	23.4%
PROJ 3 (zero employment growth)	15,052	5.1%	18,936	15.7%	0	0.0%
PROJ 4 (5% employment growth	28,631	9.6%	24,555	20.4%	6,625	5.0%
PROJ 5 (10% employment growth)	42,209	14.2%	30,174	25.0%	13,250	10.0%

6.31 Trend-based projections for Leicester indicate a housing requirement around 1820 homes per annum. Because of the demographic structure of the City, this is mostly driven by natural change in the City's existing population rather than net migration. It is however significantly above past completions rates which over the last ten years have been running at 910 pa. However economic performance may moderate the housing requirement, with the two economic-driven scenarios (for 5 and 10% net employment growth over the 25 year projection period) indicating a housing requirement for between 980 – 1200 homes per annum.

Leicestershire

Figure 6.15: Summary of projections 2006 to 2031 – annual - Leicestershire						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	4,342	0.7%	2,688	1.0%	886	0.3%
PROJ 2 (zero net-migration)	1,000	0.2%	1,336	0.5%	-1,024	-0.3%
PROJ 3 (zero employment growth)	2,828	0.4%	2,070	0.8%	0	0.0%
PROJ 4 (5% employment growth	3,990	0.6%	2,540	1.0%	665	0.2%
PROJ 5 (10% employment growth)	5,153	0.8%	3,009	1.1%	1,330	0.4%

Figure 6.16: Summary of projections 2006 to 2031 – total - Leicestershire						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	108,552	17.2%	67,202	25.5%	22,143	6.7%
PROJ 2 (zero net-migration)	25,009	4.0%	33,397	12.7%	-25,609	-7.7%
PROJ 3 (zero employment growth)	70,690	11.2%	51,747	19.6%	0	0.0%
PROJ 4 (5% employment growth	99,759	15.8%	63,488	24.1%	16,627	5.0%
PROJ 5 (10% employment growth)	128,828	20.4%	75,230	28.6%	33,255	10.0%

6.32 The trend-based scenario in Leicestershire results in a housing requirement of 2,690 per annum. This is slightly below the CLG projection and is influenced by net in-migration. A zero net migration scenario for the County results in a housing requirement of 1,335 per annum. However because of the age structure of the County's population housing provision of 2,070 per annum is required to maintain current levels of employment. 5% employment growth over the 2006-31 period would require 2,540 homes per annum (marginally below the trend-based projection), whilst over 3,000 homes per annum would be required to support a more aspirational 10% employment growth over the 25 year period.

Leicester and Leicestershire

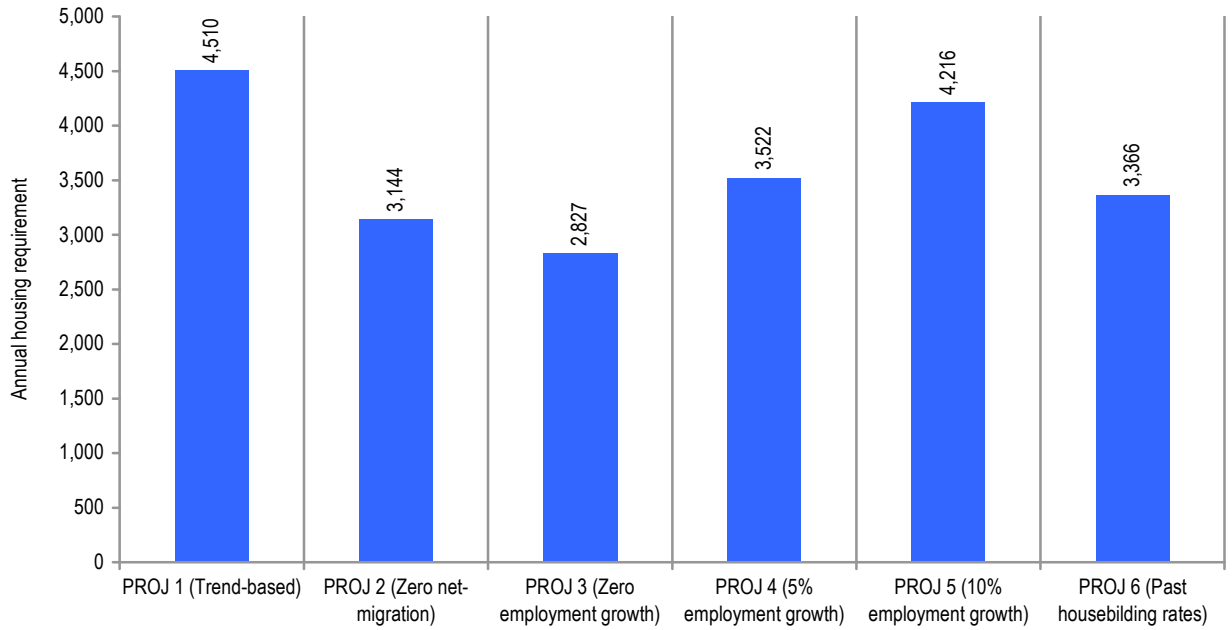
6.33 Projections for the Leicester and Leicestershire Housing Market as a whole are shown in the figures below. The trend-based projection, PROJ 1, indicates a housing requirement of 4,500 homes per annum. This is the highest of the projections. Between 3,500 – 4,200 homes per annum would be required to support 5% and 10% employment growth respectively over the 25 year period (2006-31). Past completions have averaged 3,366 per annum over the past 10 years (see below).

Figure 6.17: Summary of projections 2006 to 2031 – annual – Leicester and Leicestershire						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	7,515	0.8%	4,510	1.2%	2,140	0.5%
PROJ 2 (zero net-migration)	4,141	0.4%	3,144	0.8%	214	0.0%
PROJ 3 (zero employment growth)	3,430	0.4%	2,827	0.7%	0	0.0%
PROJ 4 (5% employment growth	5,136	0.6%	3,522	0.9%	930	0.2%
PROJ 5 (10% employment growth)	6,841	0.7%	4,216	1.1%	1,860	0.4%

Figure 6.18: Summary of projections 2006 to 2031 – total - Leicester and Leicestershire

Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	187,881	20.2%	112,738	29.4%	53,505	11.5%
PROJ 2 (zero net-migration)	103,519	11.1%	78,594	20.5%	5,352	1.2%
PROJ 3 (zero employment growth)	85,743	9.2%	70,682	18.4%	0	0.0%
PROJ 4 (5% employment growth	128,390	13.8%	88,043	22.9%	23,252	5.0%
PROJ 5 (10% employment growth)	171,037	18.4%	105,404	27.4%	46,505	10.0%

Figure 6.19: Projections of Annual Housing Requirements – Leicester & Leicestershire



PROJECTIONS DRIVEN BY PAST HOUSEBUILDING (PROJ 6)

6.34 For comparative purposes, we have constructed supply-driven projections (PROJ 6) of what change in population and employment might result from maintaining recent housing delivery rates. These have been based on projecting forward average annual net completions over the 10 year period between 2000 and 2010 in each local authority. The figure below records past net completions.

Figure 6.20: Past Housing Completions (Net) 2000/1 – 2009/10											
Area	2000-1	2001-2	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10	Aver-age
Blaby	368	313	194	155	157	247	218	329	197	180	236
Charnwood	442	450	366	904	912	705	967	924	713	644	703
Harborough	617	699	283	279	197	255	450	588	263	542	417
Hinckley & Bosworth	300	485	742	421	583	454	438	398	474	353	465
Leicester	558	463	831	874	962	1,131	1,215	942	1,208	930	911
Melton	170	115	175	168	112	157	199	234	284	237	185
NW Leicestershire	485	493	395	315	306	410	336	355	235	231	356
Oadby & Wigston	84	15	85	109	143	117	154	39	92	93	93
Total (L & L)	3,024	3,033	3,071	3,225	3,372	3,476	3,977	3,809	3,466	3,210	3,366

Source: Leicestershire Planning Authorities figures collated by Leicestershire County Council

Leicester

6.35 In Leicester, projecting forward completions of 911 per annum would support population growth of 8.2% and employment growth of 3.4% between 2006-31.

Figure 6.21: Population estimates 2006 to 2031 based on past completion rates - Leicester						
Projection	2006	2011	2016	2021	2026	2031
PROJ 6 (past build rates)	296,753 0.0%	305,846 3.1%	310,627 4.7%	315,553 6.3%	319,134 7.5%	321,084 8.2%

Figure 6.22: Number of people in employment 2006 to 2031 based on past completion rates - Leicester						
Projection	2006	2011	2016	2021	2026	2031
PROJ 6 (past build rates)	132,496 0.0%	133,837 1.0%	138,765 4.7%	138,009 4.2%	137,304 3.6%	137,023 3.4%

Leicestershire

6.36 In Leicestershire, if past completions rates were maintained we would expect population growth of 14.9% and employment growth of 4.0% over the 2006-31 period.

Figure 6.23: Population estimates 2006 to 2031 based on past completion rates - Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 6 (past build rates)	632,261 0.0%	653,724 3.4%	673,444 6.5%	692,794 9.6%	710,969 12.4%	726,267 14.9%

Figure 6.24: Number of people in employment 2006 to 2031 based on past completion rates - Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 6 (past build rates)	332,552 0.0%	327,994 -1.4%	343,102 3.2%	343,250 3.2%	344,077 3.5%	345,866 4.0%

Leicester and Leicestershire

6.37 For Leicester and Leicestershire as a whole, average housing delivery of 3,366 per annum based on trends over the last 10 years would support population growth of 12.7% and employment growth of 3.8% over the 2006-31 period.

Figure 6.25: Population estimates 2006 to 2031 based on past completion rates – Leicester and Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 6 (past build rates)	929,014 0.0%	959,571 3.3%	984,071 5.9%	1,008,347 8.5%	1,030,103 10.9%	1,047,351 12.7%

Figure 6.26: Number of people in employment 2006 to 2031 based on past completion rates - Leicester and Leicestershire						
Projection	2006	2011	2016	2021	2026	2031
PROJ 6 (past build rates)	465,048 0.0%	461,831 -0.7%	481,867 3.6%	481,260 3.5%	481,381 3.5%	482,889 3.8%

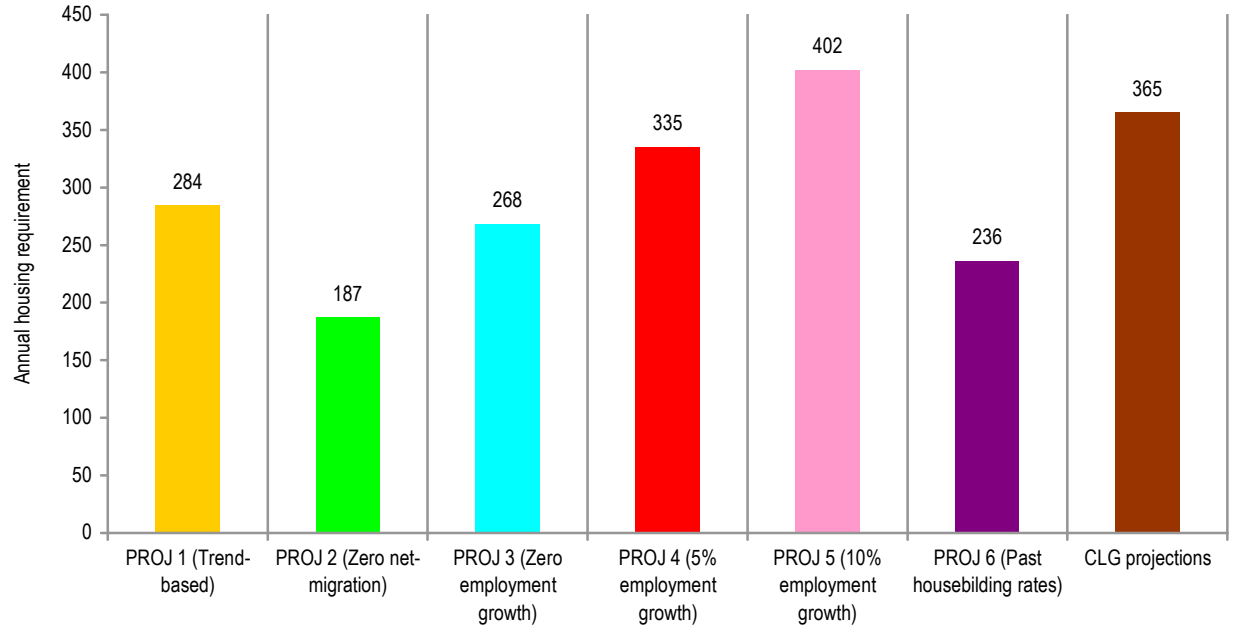
DISTRICT LEVEL SUMMARIES

6.38 The figures below summarise the results for each individual local authority with regard to housing requirements under each of the six scenarios plus the CLG 2008-based projections. Further details about population change, employment change and the profile of the population at local authority level can be found in Appendix 3.

Blaby

6.39 The trend-based projection in Blaby is for 284 homes per annum which would support only moderate employment growth. The employment projections would support a higher number, of between 355 – 400 homes per annum. However past housing completions have been running significantly lower; at around 236 pa.

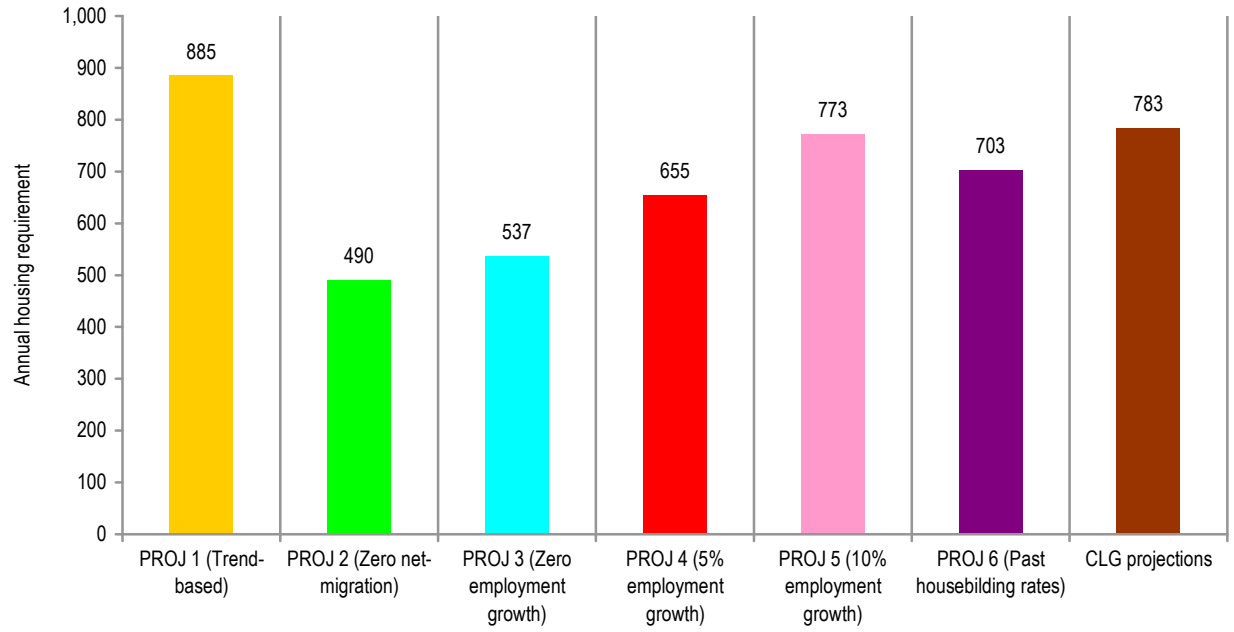
Figure 6.27: Summary of housing requirements – per annum - Blaby



Charnwood

6.40 In Charnwood our trend-based projection is of 885 homes per annum. This is above the past completions rate of 703 pa. The demographic structure however will support growth in the working-age population and the economic scenarios indicate some potential to justify a lower figure looking at the authority on its own.

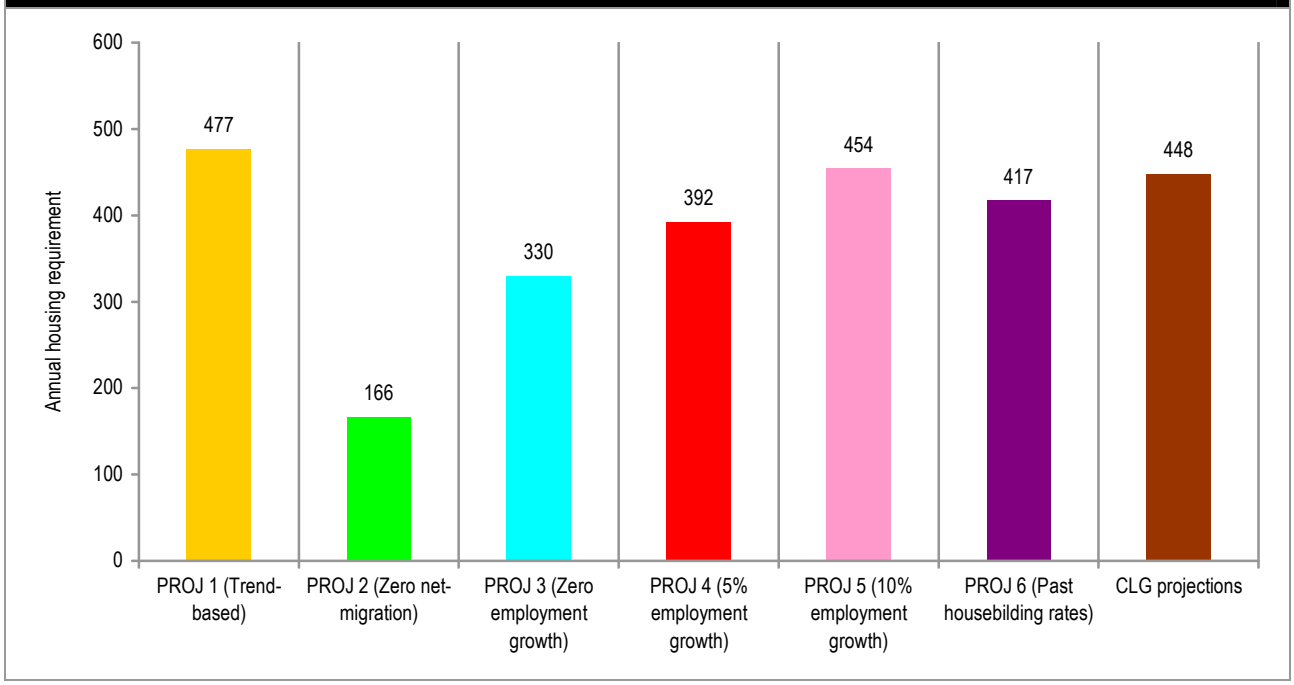
Figure 6.28: Summary of housing requirements – per annum - Charnwood



Harborough

6.41 In Harborough our trend based projections is for 477 homes per annum, with the economic-driven projections for between 392 – 454 homes per annum. Past completions rates have fallen at the lower end of this range, averaging 417 per annum.

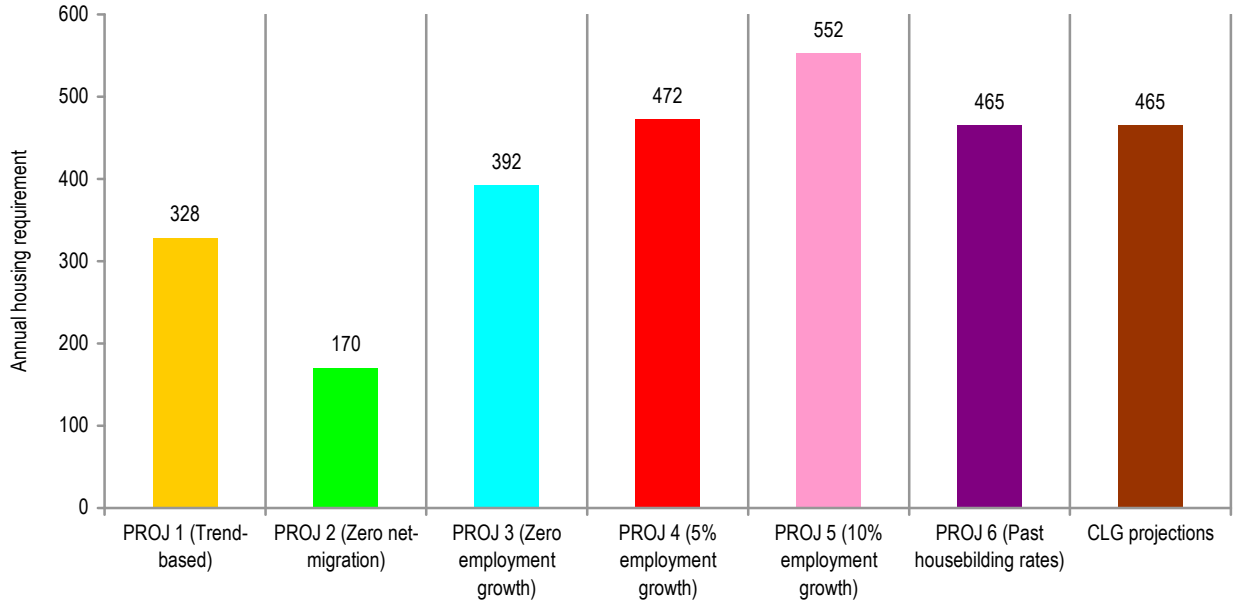
Figure 6.29: Summary of housing requirements – per annum - Harborough



Hinckley and Bosworth

6.42 In Hinckley & Bosworth the trend-based projections are for 328 dwellings pa. However 392 homes pa are required to support zero employment growth, and between 472 – 552 homes per annum required to support employment growth of between 5 – 10%. Past completions equate to delivery of 465 homes pa.

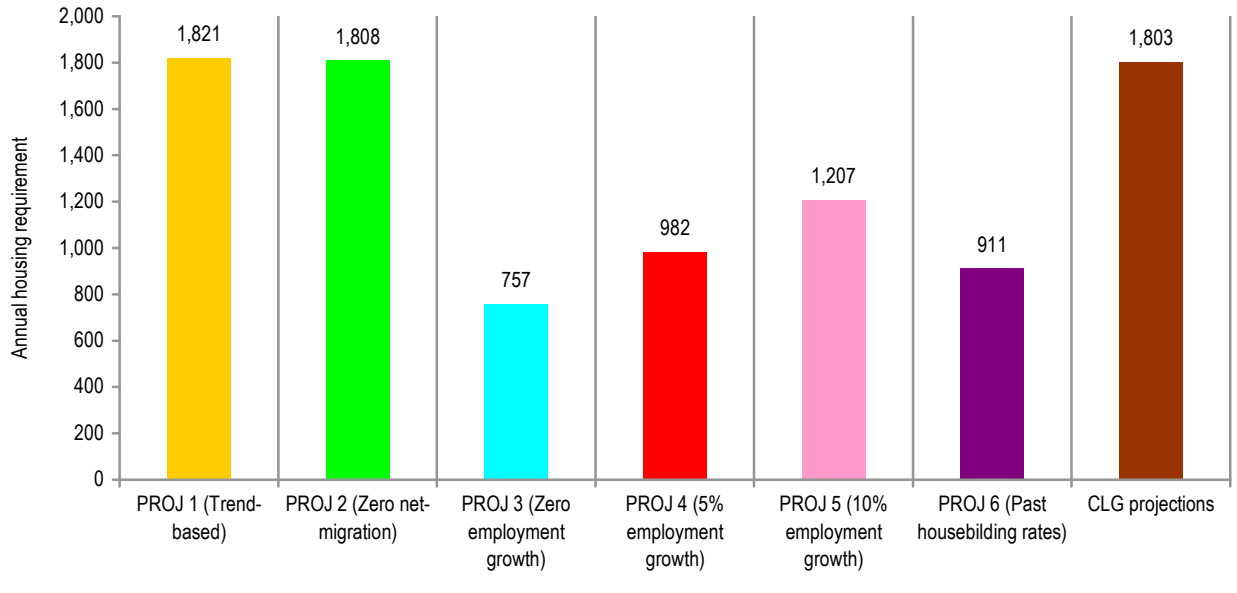
Figure 6.30: Summary of housing requirements – per annum – Hinckley and Bosworth



Leicester

6.43 We have described the projections for Leicester above, but in summary the trend-based projection is for 1,821 homes per annum which supports small levels of net in-migration and would support substantial employment growth. The economic scenarios for 5 and 10% employment growth result in a lower housing requirement, of 982 and 1,207 homes per annum respectively. All of these projections are above past completions rates of 911 per annum on average.

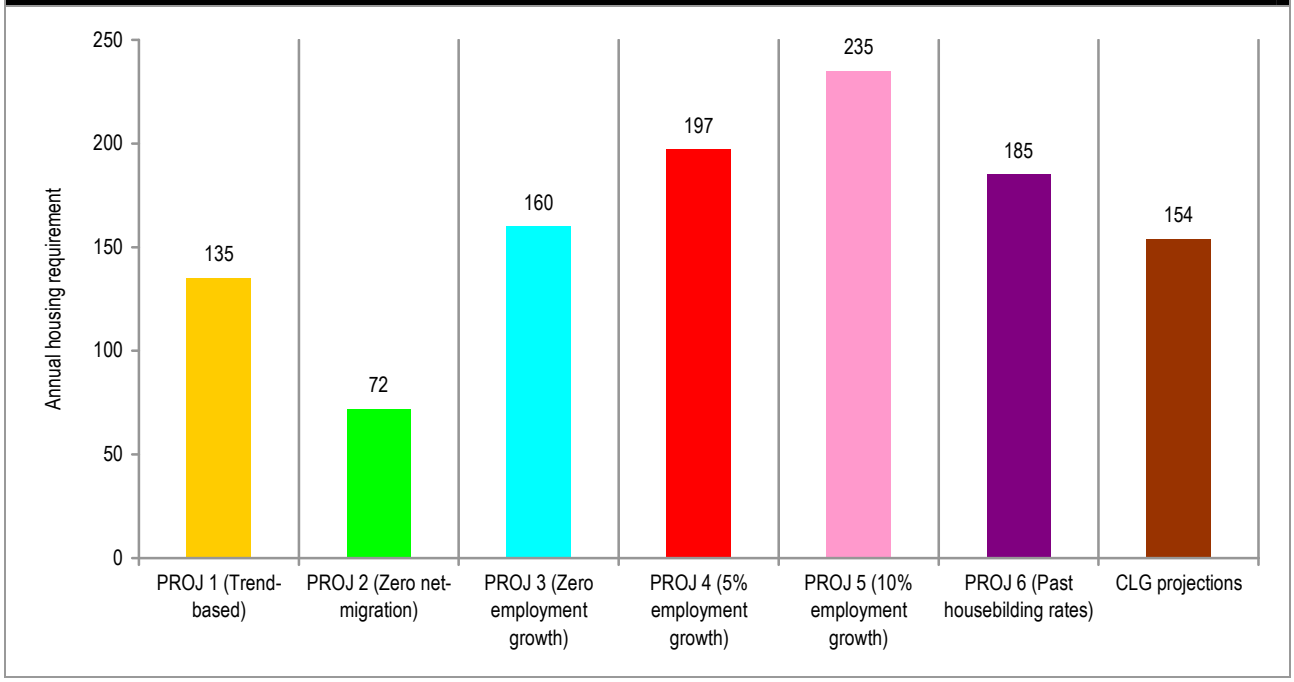
Figure 6.31: Summary of housing requirements – per annum – Leicester



Melton

6.44 In Melton, the trend-based projections are of 135 homes per annum, however this supports relatively low levels of employment growth. To support 5% and 10% employment growth would require 197 and 235 homes per annum respectively. Past completions have averaged 185 per annum over the last decade.

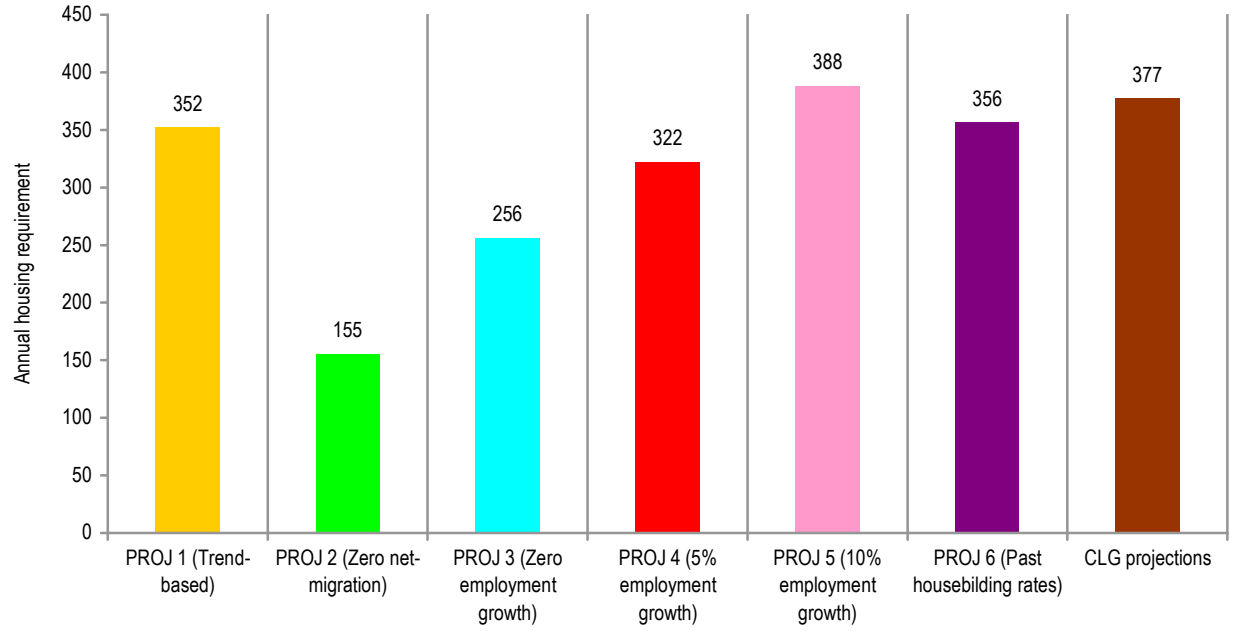
Figure 6.32: Summary of housing requirements – per annum – Melton



North West Leicestershire

6.45 In North West Leicestershire, the trend-based projection is of 352 homes per annum. This is similar to past completions rates which have averaged 356 per annum. The economic-driven projections indicate that 332 homes per annum would be required to support 5% employment growth between 2006-31 and 388 homes per annum to support 10% employment growth over this period.

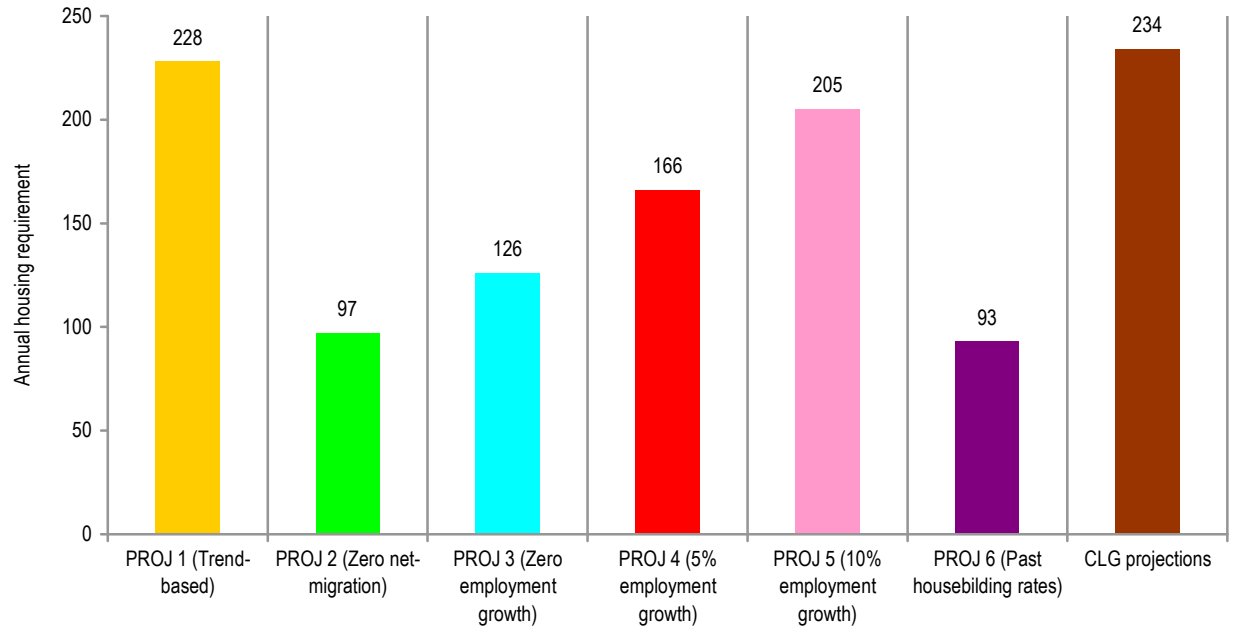
Figure 6.33: Summary of housing requirements – per annum – North West Leicestershire



Oadby and Wigston

6.46 For Oadby and Wigston to the trend-based projection of 228 homes per annum is significantly above past completions rates of 93 dwellings per annum. Around 126 – 166 dwellings pa would be required to support the economic scenarios for 5% and 10% employment growth over the 2006-31 period.

Figure 6.34: Summary of housing requirements – per annum – Oadby and Wigston



7. Projections for the Principal Urban Area

INTRODUCTION

7.1 The Principal Urban Area (PUA) of Leicester is used to describe the urban area of the City which extends beyond the City Council's boundaries and includes Oadby & Wigston Borough and parts of Blaby, Charnwood and Harborough.

7.2 A key component of the RSS spatial strategy of urban concentration and regeneration was to seek to prioritise delivery of housing within the Principal Urban Area (PUA) of Leicester or as urban extensions to it.

7.3 On the basis of the strong functional relationships between areas within the PUA, separate projections have been prepared for it, in line with the project brief.

DEFINING THE PRINCIPAL URBAN AREA (PUA)

7.4 For the purposes of analysis in this report the PUA has been defined on the basis of a best approximation to wards. The table below shows the wards in each local authority that are considered to be in the PUA. In the case of Blaby a small part of Saxondale ward is technically not in the PUA with the same being the case for Birstall Wanlip ward in Charnwood. This does not however influence the results in any significant way. The population numbers outside of the PUA in each of these wards is thought to be small and so in each case the whole ward is included for analysis. In the case of Thurnby and Houghton (in Harborough) it is estimated that only three-quarters of the population is in the PUA – we have therefore taken population figures on a pro-rata basis for analysis in this area.

Figure 7.1: Wards in Leicester Principal Urban Area

Local Authority	Wards
Blaby	Ellis, Fairestone, Forest, Millfield, Muxloe, Ravenhurst and Fosse, Saxondale, Winstanley
Charnwood	Birstall Wanlip, Birstall Watermead, Thurmaston
Harborough	Thurnby and Houghton (part)
Leicester	ALL WARDS
Oadby and Wigston	ALL WARDS

7.5 Data about the population of the PUA in 2006 has been taken from ONS mid-year ward estimates (which include data by age and sex). We have also looked at local level birth and death rates – whilst there is some variation between smaller areas and wider local authorities the differences do not appear to be significant. We have therefore used birth and death rates at a ward level equal to those in the main projections for whole districts (i.e. the birth and death rates in the Blaby part of the PUA are assumed to be the same as for Blaby as a whole). The figures for actual births and deaths will however vary depending on the population profile in each area.

7.6 It is difficult to get accurate data for migration below District level. The only potential source is the 2001 Census which is now rather out of date and also has the drawback of not including international migration (no estimate of international out-migration). However the main problem with Census data is that it only covers one year and as our main analysis of migration has shown this can be quite variable year on year.

7.7 For the purposes of our projections we have therefore applied our District-wide migration figures to the estimated population profile for 2006 (and beyond). Technically this will underestimate both in- and out- migration at a smaller area level due to migration between areas. However, because we have adjusted the migration profile based on the age/sex structure in each area, the overall age profile of migrants will be close to that which might be expected if a full analysis were possible. Overall levels of net migration which are particularly important for the analysis are not affected by additional assumptions made.

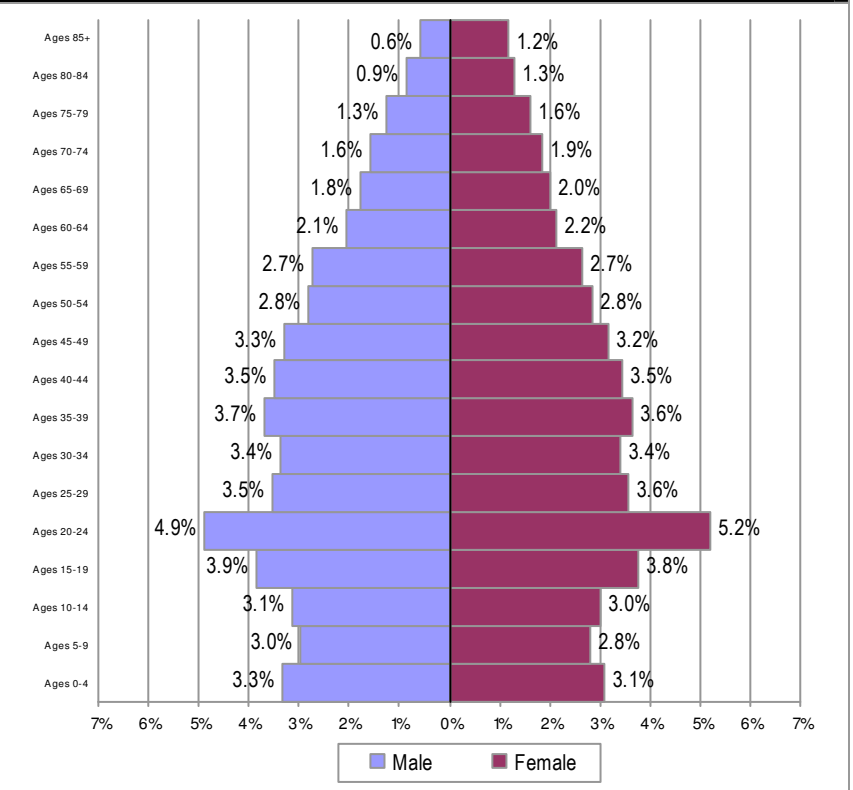
7.8 Finally, employment rates and headship rates for individual wards are also assumed to be in line with the district in which a ward can be found. These are again adjusted on the basis of the population age structure of the ward so that the actual estimate of people in employment and the number of households reflects the demographic profile in each area.

BASE POPULATION

7.9 The figure below shows our base population in the PUA for mid-2006 – in total it is estimated that there were 424,862 people living in the PUA in 2006. The vast majority of these (70%) lived within the boundaries of the Leicester City Council area. For this reason the population pyramid most closely resembles that for Leicester although the estimated proportion of people in the older age bands is slightly higher than that for Leicester with a lower proportion in many other age groups – most notably the 20-24 age group.

Figure 7.2: Population of the Principal Urban Area (5 year age bands) – 2006

Age group	Male	Female
Ages 0-4	14,193	13,173
Ages 5-9	12,652	11,920
Ages 10-14	13,322	12,767
Ages 15-19	16,389	15,982
Ages 20-24	20,796	22,126
Ages 25-29	15,027	15,239
Ages 30-34	14,290	14,529
Ages 35-39	15,696	15,467
Ages 40-44	14,792	14,721
Ages 45-49	13,895	13,551
Ages 50-54	12,017	12,036
Ages 55-59	11,553	11,295
Ages 60-64	8,747	9,149
Ages 65-69	7,614	8,572
Ages 70-74	6,719	7,876
Ages 75-79	5,368	6,860
Ages 80-84	3,670	5,422
Ages 85+	2,406	4,961
All Ages	209,145	215,645



Source: Derived from 2008-based CLG household projections and ONS ward-based population estimates

7.10 The overall population split of the PUA by local authority is summarised below. This confirms that 70% live in Leicester with around 14% in Oadby & Wigston and only 1% in Harborough.

Figure 7.3: Population in the Principal Urban Area by local authority

Area	Population in PUA	% of population
Blaby	44,533	10.5%
Charnwood	20,775	4.9%
Harborough	4,644	1.1%
Leicester	296,753	69.9%
Oadby & Wigston	58,085	13.7%
TOTAL	424,790	100.0%

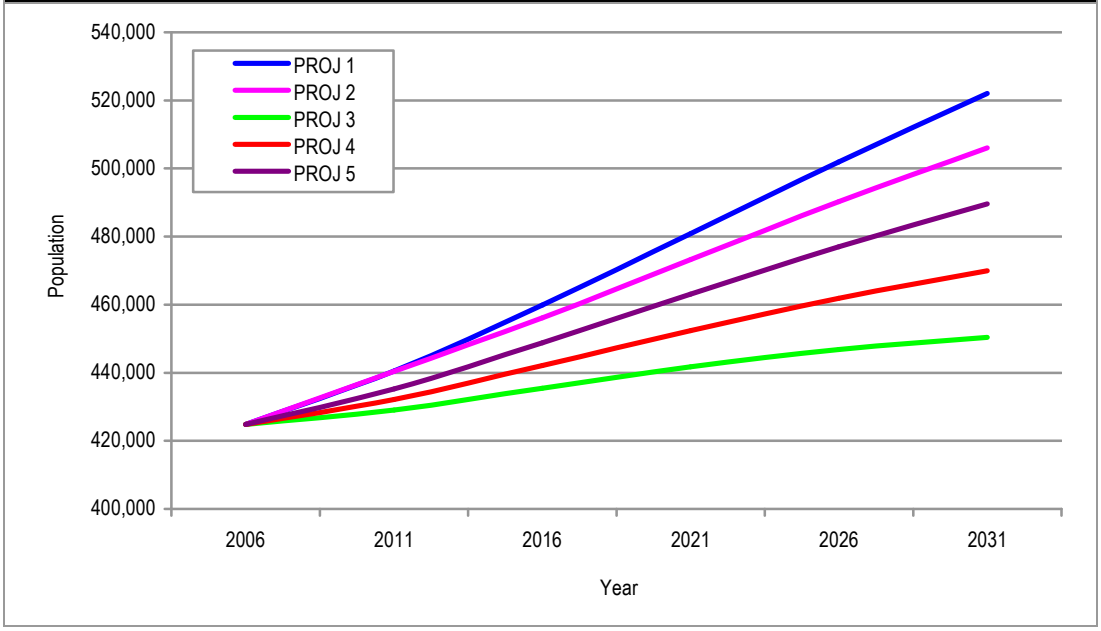
POPULATION PROJECTIONS

7.11 The table and figure below show estimated population growth in the PUA for each of our projections. The data shows that our trend-based projection shows the highest level of population growth at about 23% over the 25-year period. To achieve no increase in employment would require population increase of 6% whilst a 10% increase in employment sees population increase of around 15%. Both of these figures are below the zero net-migration estimate (of about a 19% population increase).

Figure 7.4: Population estimates 2010 to 2030 for Different Projection Variants – Principal Urban Area

Projection	2006	2011	2016	2021	2026	2031
PROJ 1 (trend-based)	424,790 0.0%	440,512 3.7%	459,857 8.3%	480,817 13.2%	501,958 18.2%	522,085 22.9%
PROJ 2 (zero net-migration)	424,790 0.0%	440,394 3.7%	456,095 7.4%	473,271 11.4%	490,253 15.4%	506,029 19.1%
PROJ 3 (zero employment growth)	424,790 0.0%	429,023 1.0%	435,428 2.5%	441,719 4.0%	446,856 5.2%	450,414 6.0%
PROJ 4 (5% employment growth)	424,790 0.0%	432,162 1.7%	442,103 4.1%	452,401 6.5%	461,911 8.7%	469,996 10.6%
PROJ 5 (10% employment growth)	424,790 0.0%	435,301 2.5%	448,778 5.6%	463,085 9.0%	476,968 12.3%	489,580 15.3%

Figure 7.5: Population Change, 2006 – 2031 – Five Scenarios – Principal Urban Area



HOUSEHOLD AND HOUSING REQUIREMENT PROJECTIONS

7.12 The table below shows an overall summary of housing requirements and associated employment growth for the PUA under each of our main scenarios. In all cases the housing numbers have been inflated by 2.5% to take account of the assumed vacancy rate.

7.13 The table shows that our trend-based assumptions suggest an annual housing requirements of around 2,300 per annum. The zero net-migration figure is slightly lower at around 2,000 per annum. To maintain 2006 employment levels in the PUA it is estimated that around 1,100 additional homes are required each year whilst the two employment growth scenarios suggest a housing requirement of between about 1,400 and 1,700 homes per annum.

7.14 Information on net completions within the PUA has only been available for the period 2001-6. This indicates net completions of 5,443 over this five year period equating to an annual average of 1089 dwellings[6].

Figure 7.6: Summary of projections 2006 to 2031 – annual – Principal Urban Area

Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	3,892	0.9%	2,273	1.3%	1,454	0.7%
PROJ 2 (zero net-migration)	3,250	0.8%	2,009	1.2%	1,122	0.6%
PROJ 3 (zero employment growth)	1,025	0.2%	1,103	0.6%	0	0.0%
PROJ 4 (5% employment growth	1,808	0.4%	1,422	0.8%	397	0.2%
PROJ 5 (10% employment growth)	2,592	0.6%	1,742	1.0%	795	0.4%

Figure 7.7: Summary of projections 2006 to 2031 – total – Principal Urban Areas

Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	97,295	22.9%	56,821	32.8%	36,350	18.3%
PROJ 2 (zero net-migration)	81,239	19.1%	50,232	29.0%	28,058	14.1%
PROJ 3 (zero employment growth)	25,624	6.0%	27,570	15.9%	0	0.0%
PROJ 4 (5% employment growth	45,206	10.6%	35,562	20.5%	9,932	5.0%
PROJ 5 (10% employment growth)	64,790	15.3%	43,555	25.1%	19,865	10.0%

[6] Roger Tym & Partners (May 2007) Leicester Principal Urban Area Strategic Housing Land Availability Assessment. Appendix 1.

8. Using the Projections in Plan-Making

8.1 The Housing Requirements project is intended to provide robust evidence of need and demand to support local authorities in Leicester and Leicestershire.

8.2 The project has included development of various projections for housing requirements taking account of demographic trends and considering how this might relate to alternative scenarios for employment growth.

8.3 In assessing housing need and demand, regard should be had to the trend-based demographic projection (PROJ 1) and to the economic-driven scenarios (PROJ 3 – 5). PROJ 2 and PROJ 3 were developed as comparative scenarios to understand the impact of migration and the relationship between population and employment levels and do not represent an assessment of need and demand.

8.4 In clarifying what could be regarded as an objective assessment of development needs, local authorities should consider what level of economic growth is realistic to plan for in their areas. The economic development strategies of local authorities and the Local Enterprise Partnership are relevant considerations. The demographic projections should also be brought together with the conclusions of the latest Strategic Housing Market Assessment.

8.5 PPS3 identifies a range of factors which need to be considered in determining housing requirements through the LDF process, alongside evidence of need/demand. These include:

- The spatial strategy;
- Evidence of land availability;
- Other elements of the local evidence base, including economic assessments and Employment Land Reviews;
- Infrastructure requirements and delivery;
- Community and stakeholder engagement; and
- Sustainability Appraisal.

8.6 The draft NPPF does however make clear that the local authorities should plan on the basis of meeting objectively assessed development needs unless there are specific circumstances where the adverse impacts of doing so would significantly and demonstrably outweigh the benefits. Environmental designations of national significance or strategic infrastructure constraints could for instance constrain the ability of a local authority to meet its needs.

8.7 Across Leicester and Leicestershire as a whole, we consider that a realistic and defensible assessment of housing need and demand based on current evidence would fall between 3,500 – 4,500 homes per annum over the 2006-31 period. The baseline forecast of economic performance is of 5.9% employment growth over the 2006-31 period. We consider that provision of between 4,000 – 4,500 homes per annum would represent a positive planning framework which would ensure that housing provision did not constrain the ability of the sub-region's economy to achieve a level of economic growth above the baseline forecast.

8.8 In light of proposals within the draft National Planning Policy Framework, we would recommend that local authorities (specifically those without adopted or submitted Core Strategies) considered what level of employment growth could be considered realistic in their area, taking account of the performance and prospects of their local economies. Using the projections developed, this should be used to make an objective assessment of development needs in their area. This should be undertaken evaluating together the economic and demographic led projections, and considering what realistic assumptions on employment growth should be for strategic planning purposes. The ability to deliver this level of housing development should then be assessed.

8.9 We would expect those authorities with adopted Core Strategies to assess the strategic fit of these with the policies within the NPPF. In light of the current wording in the draft NPPF this would include consideration of whether the policies within their plan meet identified development needs in their area. The projections of developed herein can help to inform this process, and consideration of any need to review LDF documents.

8.10 In line with the Duty to Cooperate on strategic planning issues, continued sub-regional working at the Housing Market Area level, will be important in considering and addressing any shortfall in what an individual local authority might be able to provide against assessed development needs.

Appendix 1 Validating the Projection Methodology

INTRODUCTION

A1.1 In this report we have set out a number of different projections for growth based on different scenarios. Whilst the methodology for carrying out population and household projections is well established it is worth checking that our demographic modelling is providing robust outputs.

A1.2 To test our model we have therefore constructed an additional projection run which is closely aligned to the 2008-based ONS population projections and 2008-based CLG household projections. In many ways this is broadly the same as for our trend-based projection (PROJ 1) although we have adjusted the migration data to exactly match that used by ONS (in terms of overall net migration in each five year time period of projection).

A1.3 We have not made any further adjustments to fertility or mortality assumptions as these have already been broadly set up to be consistent with ONS projections. For our modelling we have again used 2006 as our base date with the period 2006 to 2008 being based on past trend data (our main model uses trend data for a slightly longer period of 2006 to 2009). Because our projection uses a slightly different base date to the ONS figures we have in comparing the two sources simply looked at final outputs for 2031. Specifically our model compares:

- Overall population size in 2031 (and by local authority area)
- Age profile of the population (for Leicester and Leicestershire separately)
- Household numbers in 2031 (and by local authority area)

MIGRATION DATA

A1.4 A key difference between our trend-based projection and ONS projections is around migration estimates. In our trend-based projection we have used an average annual level of net migration over the ten year period from 1999 to 2009 – this level is kept constant throughout the projection period.

A1.5 The ONS data meanwhile varies migration levels over time with the information being derived from past trends over the previous five years. The use of a five year period is consistent with previous ONS projections but does have the downfall in that it may include a number of atypical years (e.g. with particularly high migration due to housing completions).

A1.6 The tables below therefore shows the migration assumptions used to produce a model that is broadly consistent with the ONS 2008-based population projections – these figures have been compared with those used in our main trend-based projection (PROJ 1) and are provided separately for each local authority area. The figures are presented as an annual average of net in-migration for five year periods from 2006 to 2031. For the period from 2006 to 2011 the figures are part trend-based and part projection and it is likely that differences between outputs will arise due to different assumptions underlying figures for the 2006 to 2008 period.

A1.7 Overall, the trend levels of net-migration tend to be slightly lower than the overall average figures derived from ONS projections – there are however a number of exceptions with Charnwood, Harborough and Leicester all showing slightly higher trend-based migration figures than would be suggested in the ONS projections.

Figure A1.1: Comparison of trend-based and ONS 2008-based projection migration assumptions

Period	Blaby		Charnwood		Harborough		Hinckley & Bosworth		Leicester	
	Trend-based	ONS	Trend-based	ONS	Trend-based	ONS	Trend-based	ONS	Trend-based	ONS
2006-11	142	158	1,162	1,271	680	558	354	499	54	967
2011-16	250	346	910	678	800	662	390	647	30	247
2016-21	250	459	910	695	800	756	390	701	30	-390
2021-26	250	467	910	1,010	800	795	390	724	30	-585
2026-31	250	461	910	1,007	800	812	390	744	30	-705
Average	228	378	960	932	776	717	383	663	35	-93

Figure A1.2: Comparison of trend-based and ONS 2008-based projection migration assumptions

Period	Melton		NW Leicestershire		Oadby & Wigston		Leicestershire		Leicester& Leicestershire	
	Trend-based	ONS	Trend-based	ONS	Trend-based	ONS	Trend-based	ONS	Trend-based	ONS
2006-11	124	90	362	418	214	416	3,038	3,410	3,092	4,377
2011-16	160	152	500	535	340	338	3,350	3,358	3,380	3,605
2016-21	160	225	500	583	340	285	3,350	3,704	3,380	3,314
2021-26	160	274	500	578	340	416	3,350	4,264	3,380	3,679
2026-31	160	301	500	584	340	439	3,350	4,348	3,380	3,643
Average	153	209	472	540	315	379	3,287	3,818	3,322	3,725

POPULATION SIZE AND AGE STRUCTURE

A1.8 The table below shows overall population estimates for each local authority from both the ONS 2008-based population projections and our projection modelling (designed to as closely as possible reflect ONS projection assumptions). The data shows that for all local authorities the figures are within 1% of each other with a difference across the whole of the study area of just 0.2%. Generally our projections are showing slightly higher figures in most authorities – the only exception being in Blaby where our figure is 0.6% lower than the ONS data.

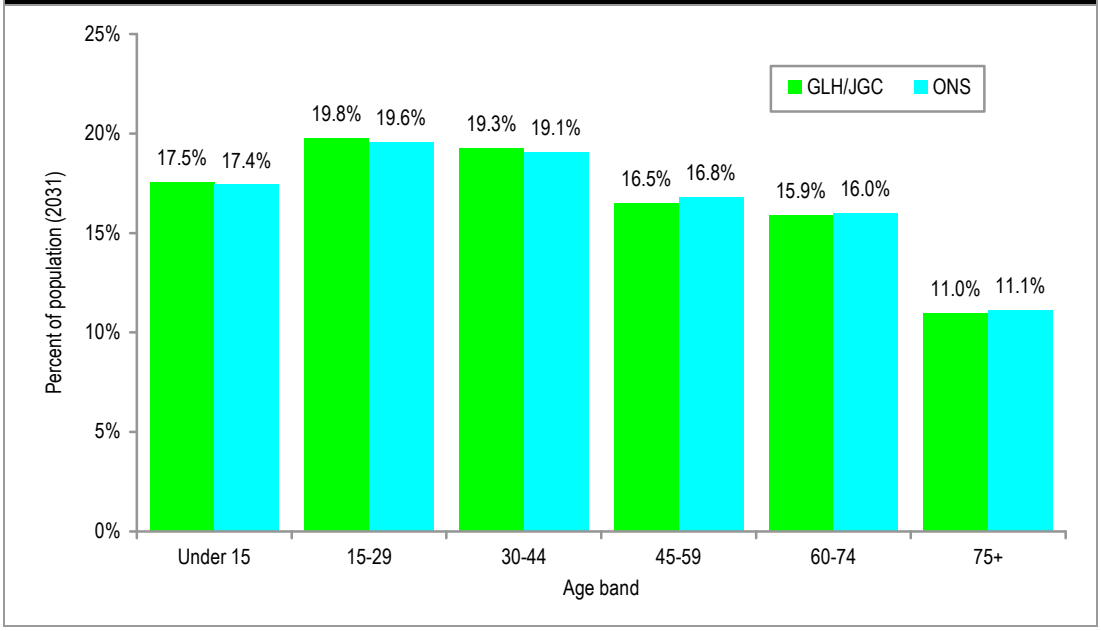
A1.9 Although differences are likely to be caused by detailed differences in the modelling used there will also be a difference due to the assumptions we have made to get from 2006 to a 2008 start point. Overall, however, the figures are sufficiently close to suggest that our projection modelling is broadly correct and is giving outputs that are of the right order of magnitude.

Figure A1.3: Comparison of outputs from ONS projections and GLH/JGC modelling (Population, 2031)

Area	ONS	GLH/JGC model	% difference from ONS
Blaby	108,735	108,134	-0.6%
Charnwood	194,151	195,665	0.8%
Harborough	99,279	99,687	0.4%
Hinckley & Bosworth	121,590	121,755	0.1%
Melton	53,412	53,643	0.4%
NW Leicestershire	105,954	106,467	0.5%
Oadby & Wigston	69,255	69,348	0.1%
Leicestershire	752,376	754,699	0.3%
Leicester	378,404	378,495	0.0%
TOTAL	1,130,780	1,133,194	0.2%

A1.10 The figure below compares the proportion of the total population in each of six broad age bands for 2031 in Leicester and Leicestershire as a whole. The data suggests a broadly similar population profile for all age groups with the biggest difference being only 0.3% (for the 45-59 age group) - this again provides some confidence that our projection modelling is sound and is providing realistic outputs.

Figure A1.4: Comparison of GLH/JGC model and ONS Projection Age Profiles in 2031 – Leicester & Leicestershire



HOUSEHOLDS

A1.11 The final comparison we have made is in terms of the number of households derived by CLG (in their 2008-based household projections) and through our own modelling which is closely aligned to the ONS population projections (which are then used to derive household figures). As with the population projection data our modelling overall derives similar figures for the estimated number of households in 2031 as the CLG projections.

A1.12 Taking the whole of the study area or indeed Leicester of Leicestershire separately we find that there is virtually no difference between our figures and those in CLG projections. We do however recognise that there are differences for some local authorities although (as was the case with population data) the difference does not exceed 1% in any particular location.

Figure A1.5: Comparison of outputs from CLG projections and GLH/JGC modelling (Households, 2031)			
Area	CLG	GLH/JGC model	% difference from ONS
Blaby	46,512	46,076	-0.9%
Charnwood	82,155	82,413	0.3%
Harborough	44,128	44,074	-0.1%
Hinckley & Bosworth	54,536	54,306	-0.4%
Melton	24,029	24,157	0.5%
NW Leicestershire	46,375	46,511	0.3%
Oadby & Wigston	28,269	28,419	0.5%
Leicestershire	326,004	325,956	0.0%
Leicester	161,540	161,445	-0.1%
TOTAL	487,544	487,401	0.0%

Appendix 2 Natural Change Projection

INTRODUCTION

A2.1 In addition to the various projections run in the main body of the report we have run an additional projection on the basis of natural change (zero migration). This differs from the zero net-migration scenario (PROJ 2) in that all migration is removed from the projection methodology (rather than allowing in- and out-migration but setting the overall totals equal). The zero net-migration model allows for age structure changes due to migration whereas the natural change model does not. This projection might alternatively be known as a natural change projection.

A2.2 We have not included this projection with our main analysis of local demography as we do not feel in the context of Leicester and Leicestershire that this would be a very realistic projection to present. The main reason for this is that the projections will be heavily dependent on the current population structure which may not be realistic in moving forward. In particular we highlight the areas with a large student population (particularly Leicester and Charnwood); in these areas a natural change projection will tend to show large population increase due to students moving through child bearing ages when in reality many will out-migrate before having children. Making an assumption that this population remains in the area will also have an impact on the general population profile (and this is also evidenced in this Appendix).

A2.3 In this section we have therefore highlighted the outputs from the natural change projection and also compared key variables (such as the population profile) with our zero net-migration projection (PROJ 2). The fertility and mortality assumptions for this projection are the same as for our main projections (as are figures for employment rates and headship). As with other projections we have also included an allowance for known migration patterns in the 2006-2009 period.

PROJECTION OUTPUTS

A2.4 The table below shows estimated population change with natural change only for each local authority and for Leicestershire and the whole Leicester and Leicestershire area – these figures have been compared to the outputs from our zero net-migration model.

A2.5 Overall, the outputs in terms of population increase are not much different for natural change only compared with zero net-migration. For the whole study area the zero migration projection suggests a 10.0% increase in population; this compares with 9.6% for zero net-migration. The main differences to observe are that Leicester shows a lower population increase with natural change only whilst all other areas show higher population increases. This is most probably due to out-migration of older persons (who have higher death rates) in Leicester for the zero net-migration model which is not applicable to zero migration.

Figure A2.1: Population Estimates 2006 to 2031 – Natural Change (by local authority)

Area	2006	2031	Change	% change	% change (ZNM)
Blaby	92,526	96,190	3,664	4.0%	5.3%
Charnwood	159,578	175,185	15,607	9.8%	8.8%
Harborough	81,103	84,364	3,261	4.0%	1.3%
Hinckley & Bosworth	103,216	104,731	1,515	1.5%	1.1%
Melton	48,492	49,187	695	1.4%	-0.4%
NW Leicestershire	89,261	92,806	3,545	4.0%	3.2%
Oadby & Wigston	58,085	60,486	2,401	4.1%	1.9%
Leicestershire	632,261	662,950	30,689	4.9%	4.0%
Leicester	296,753	358,978	62,225	21.0%	26.5%
Total (L & L)	929,014	1,021,928	92,914	10.0%	9.6%

A2.6 When looking at the estimated number of people working a broadly similar pattern emerges. For the whole Leicester and Leicestershire area the data under natural change only assumptions suggests a slight drop in the working population (compared with a small increase for zero net-migration) – overall the two projections are similar for the whole of the study area. However, in looking at individual areas we again see a smaller increase in the working population in Leicester than with zero net-migration whilst all other areas show higher increases (or lesser decreases) in the working population; Blaby (along with Leicester) is the only exception to this.

Figure A2.2: Estimated Number of People Working 2006 to 2031 – Natural Change (by local authority)

Area	2006	2031	Change	% change	% change (ZNM)
Blaby	49,697	45,414	-4,283	-8.6%	-6.0%
Charnwood	83,921	84,795	874	1.0%	-2.0%
Harborough	42,401	38,918	-3,483	-8.2%	-13.3%
Hinckley & Bosworth	53,700	46,408	-7,292	-13.6%	-13.9%
Melton	26,483	23,761	-2,722	-10.3%	-11.8%
NW Leicestershire	46,720	43,515	-3,205	-6.9%	-7.6%
Oadby & Wigston	29,629	28,973	-656	-2.2%	-3.8%
Leicestershire	332,552	311,784	-20,767	-6.2%	-7.7%
Leicester	132,496	152,015	19,519	14.7%	23.4%
Total	465,048	463,800	-1,248	-0.3%	1.2%

A2.7 Finally, we have provided data about estimated household growth under natural change only and zero net-migration assumptions. Again the household change for the whole study area is not too different under zero migration assumptions when compared with zero net-migration figures (zero migration showing a 22.7% increase and zero net-migration and increase of 20.5%). For local authorities the main differences are in Charnwood and Oadby & Wigston (much higher under natural change only, influenced by student dynamics). Leicester is the only area to show a lower household growth under natural change only than zero net-migration. To convert the figures in the table below into housing numbers it would additionally be necessary to add a 2.5% vacancy allowance).

Figure A2.3: Household Estimates 2006 to 2031 – Natural Change (by local authority)

Area	2006	2031	Change	% change	% change (ZNM)
Blaby	37,614	42,803	5,189	13.8%	12.1%
Charnwood	63,050	81,152	18,102	28.7%	18.9%
Harborough	33,190	37,801	4,611	13.9%	12.2%
Hinckley & Bosworth	43,198	47,684	4,486	10.4%	9.6%
Melton	20,287	22,101	1,814	8.9%	8.6%
NW Leicestershire	37,184	41,212	4,028	10.8%	10.1%
Oadby & Wigston	22,551	27,154	4,603	20.4%	10.5%
Leicestershire	257,074	299,908	42,834	16.7%	12.7%
Leicester	117,569	159,937	42,368	36.0%	37.5%
Total	374,643	459,845	85,202	22.7%	20.5%

POPULATION PROFILES

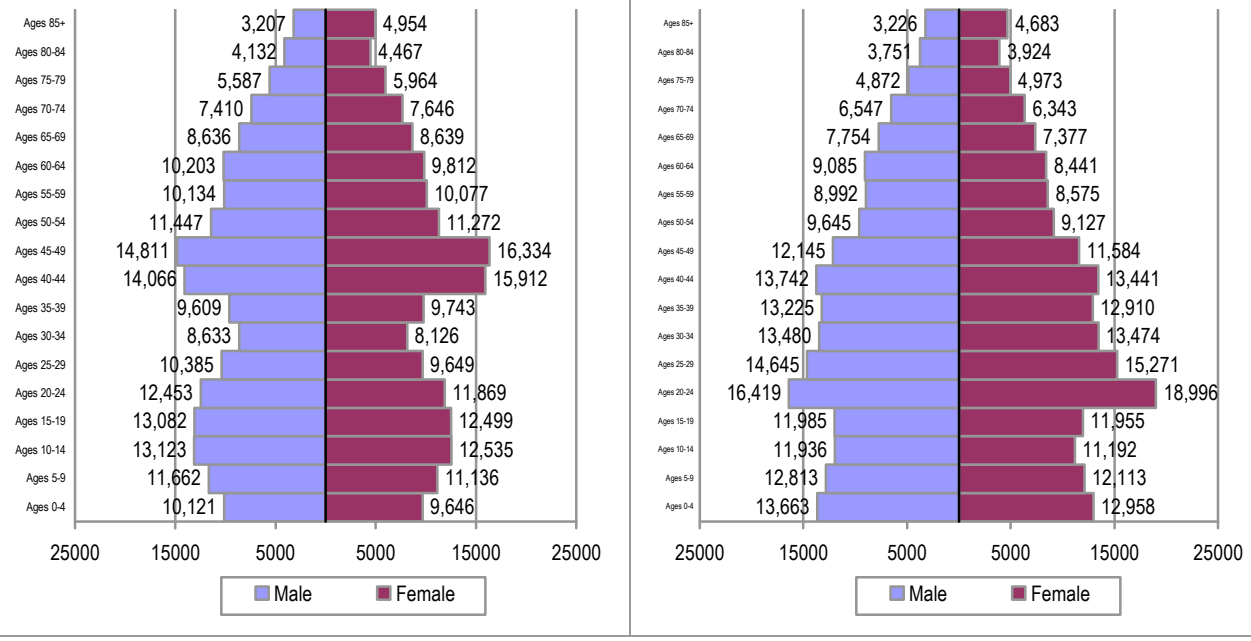
A2.8 The results suggest that in overall terms outputs from natural change are not much different than for zero net-migration (albeit with some notable differences for different local authorities). However, it is also of interest to see how the projections (zero migration compared with zero-net migration) differ in terms of the population profile.

A2.9 Below we have therefore provided population pyramids for each of Leicester, Leicestershire and the whole study area for 2031 under both natural change and zero net-migration (PROJ 2) assumptions.

A2.10 In Leicester the differences between the two projection runs are stark with the zero migration assumptions pushing the high 20-24 age group through to a high proportion being aged 45-49 in 2031. The zero net-migration assumptions more closely resemble the likely pattern of population given general trends in age/sex specific migration patterns.

Figure A2.4: Distribution of Population in 2031 (zero migration and zero net-migration assumptions) - Leicester

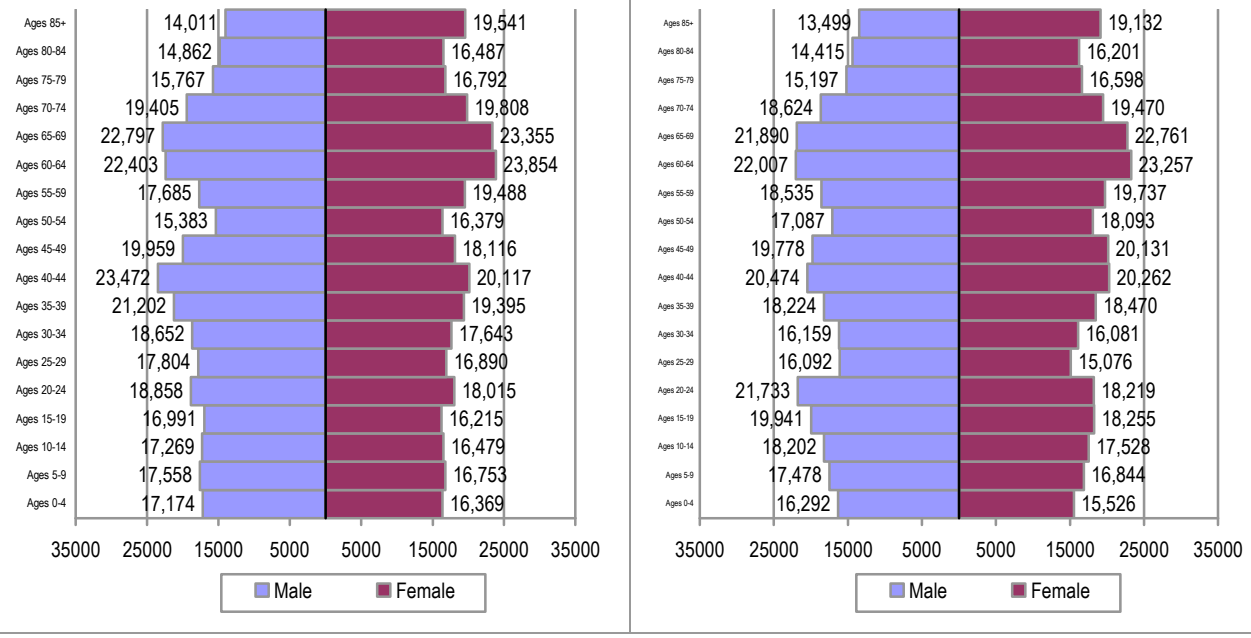
Zero migration	Zero net-migration (PROJ 2)



A2.11 In Leicestershire the population profiles for zero migration and zero net-migration do not vary as much as in Leicester. However, if we were to provide this information for individual districts there would be some notable differences (particularly in Charnwood and Oadby & Wigston which are influenced by student populations.

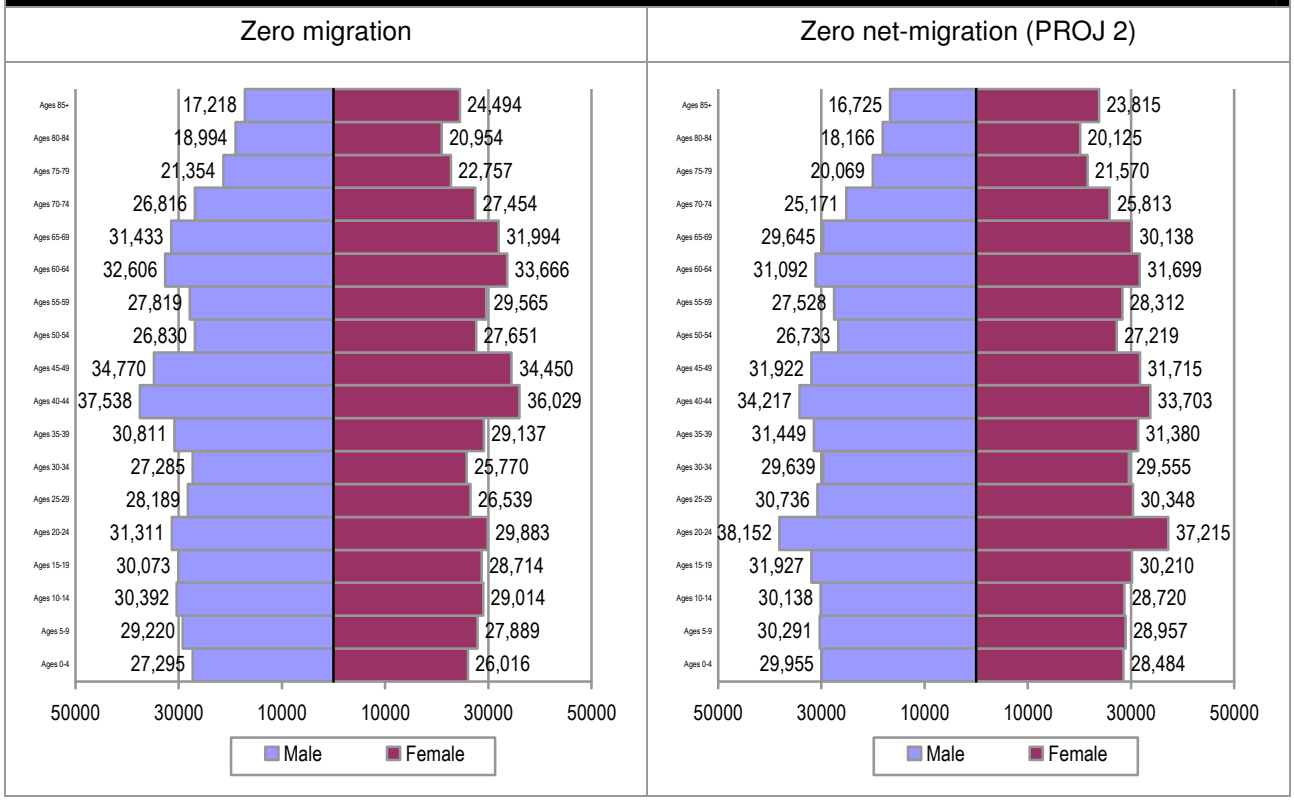
Figure A2.5: Distribution of Population in 2031 (zero migration and zero net-migration assumptions) - Leicestershire

Zero migration	Zero net-migration (PROJ 2)



A2.12 Finally, figures for the whole study area again show a peak of population in the 40-44 and 45-49 age groups (as was the case in Leicester. It is also notable that the age 20-24 group is much smaller under zero migration – this is due to the fact that the projection does not take account of the large number of students who move to the area and would typically be in this age group.

Figure A2.6: Distribution of Population in 2031 (zero migration and zero net-migration assumptions) – Leicester and Leicestershire



Appendix 3 Detailed District Level Findings

INTRODUCTION

A3.1 The sections below provide additional information about the projections run for each local authority area. For each area we have started with two tables summarising the annual and total position for the whole of the projection period (2006-2031). These tables show population, housing and employment growth together for each projection.

A3.2 The six tables following this show population, housing and employment figures for each five year period of the projection for each of the six main projections. This will allow estimates for individual time periods (e.g. 2026-2031) to be calculated. For all of these tables the housing figures are calculated as 2.5% higher than the household numbers. This means that actual housing numbers for any particular period may not be correct (where authorities currently have vacancy rates that differ from 2.5%) but the change in homes between period will be correct. The row percentages shown are cumulative increases from the baseline position in 2006.

A3.3 Finally, we have provided population pyramids for 2006 and 2031 under trend-based assumptions (PROJ 1) for each area. The population pyramids under other scenarios would be broadly the same although it is worth noting that projection runs with higher housing numbers will tend to show less ageing of the population (in proportionate terms) with the opposite being true for lower housing number projections.

BLABY

Summary of projections

Figure A3.1: Summary of projections 2006 to 2031 – annual - Blaby						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	449	0.5%	284	0.7%	24	0.0%
PROJ 2 (zero net-migration)	198	0.2%	187	0.5%	-119	-0.2%
PROJ 3 (zero employment growth)	407	0.4%	268	0.7%	0	0.0%
PROJ 4 (5% employment growth	581	0.6%	335	0.9%	99	0.2%
PROJ 5 (10% employment growth)	755	0.8%	402	1.0%	199	0.4%
PROJ 6 (Past build-rates)	325	0.4%	236	0.6%	-47	-0.1%

Figure A3.2: Summary of projections 2006 to 2031 – total - Blaby						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	11,237	12.1%	7,104	18.4%	609	1.2%
PROJ 2 (zero net-migration)	4,949	5.3%	4,670	12.1%	-2,980	-6.0%
PROJ 3 (zero employment growth)	10,169	11.0%	6,690	17.4%	0	0.0%
PROJ 4 (5% employment growth	14,523	15.7%	8,375	21.7%	2,485	5.0%
PROJ 5 (10% employment growth)	18,877	20.4%	10,060	26.1%	4,970	10.0%
PROJ 6 (Past build-rates)	8,128	8.8%	5,900	15.3%	-1,165	-2.3%

Projections in five year bands

Figure A3.3: Projection summary statistics (2006-2031) – Blaby (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	92,526	94,770	97,181	99,553	101,808	103,763
	0.0%	2.4%	5.0%	7.6%	10.0%	12.1%
Housing Numbers	38,554	39,854	41,418	42,928	44,314	45,658
	0.0%	3.4%	7.4%	11.3%	14.9%	18.4%
Employment	49,697	48,302	50,158	50,062	50,152	50,306
	0.0%	-2.8%	0.9%	0.7%	0.9%	1.2%

Figure A3.4: Projection summary statistics (2006-2031) – Blaby (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	92,526	94,270	95,381	96,328	97,068	97,475
	0.0%	1.9%	3.1%	4.1%	4.9%	5.3%
Housing Numbers	38,554	39,664	40,728	41,683	42,484	43,224
	0.0%	2.9%	5.6%	8.1%	10.2%	12.1%
Employment	49,697	47,993	49,037	48,133	47,403	46,717
	0.0%	-3.4%	-1.3%	-3.1%	-4.6%	-6.0%

Figure A3.5: Projection summary statistics (2006-2031) – Blaby (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	92,526	94,685	96,876	99,005	101,003	102,695
	0.0%	2.3%	4.7%	7.0%	9.2%	11.0%
Housing Numbers	38,554	39,822	41,301	42,716	44,003	45,245
	0.0%	3.3%	7.1%	10.8%	14.1%	17.4%
Employment	49,697	48,250	49,968	49,734	49,685	49,697
	0.0%	-2.9%	0.5%	0.1%	0.0%	0.0%

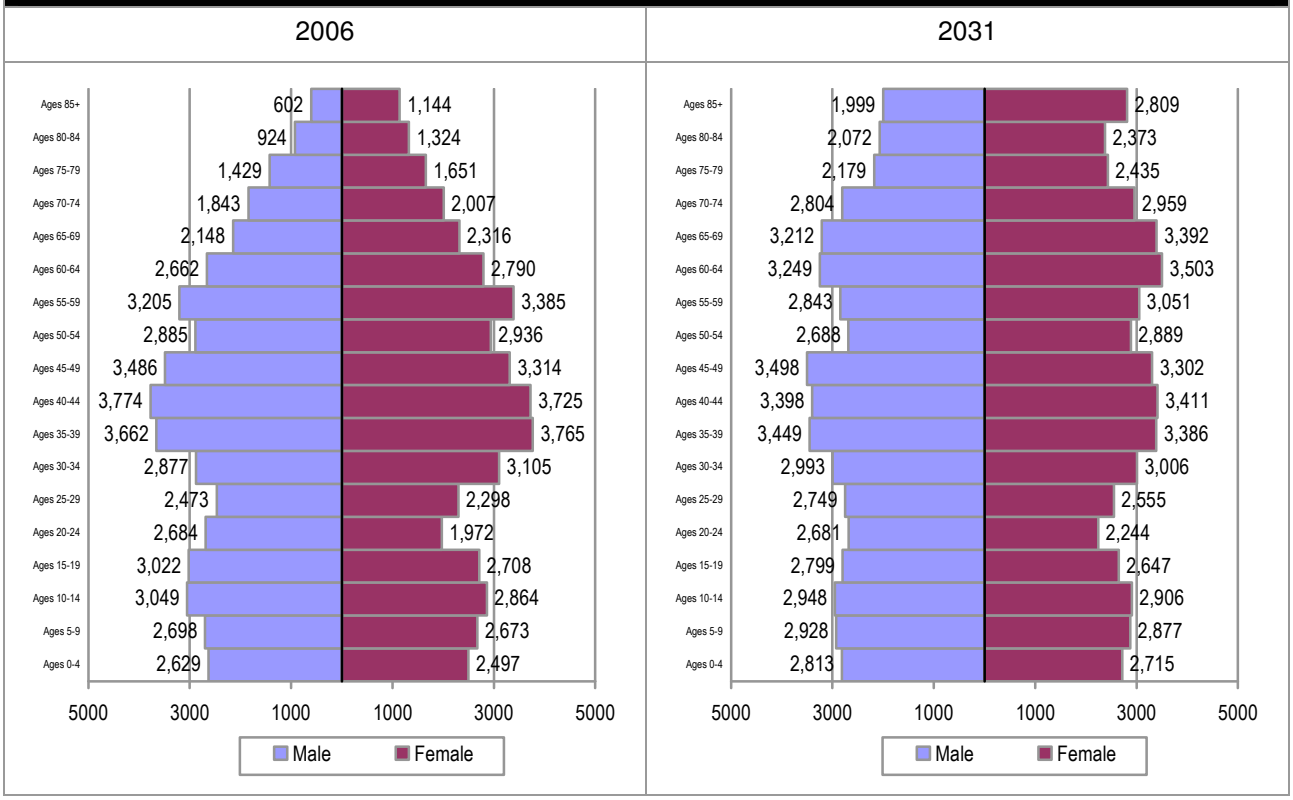
Figure A3.6: Projection summary statistics (2006-2031) – Blaby (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	92,526	95,031	98,122	101,238	104,285	107,049
	0.0%	2.7%	6.0%	9.4%	12.7%	15.7%
Housing Numbers	38,554	39,953	41,779	43,578	45,270	46,930
	0.0%	3.6%	8.4%	13.0%	17.4%	21.7%
Employment	49,697	48,464	50,744	51,070	51,589	52,182
	0.0%	-2.5%	2.1%	2.8%	3.8%	5.0%

Figure A3.7: Projection summary statistics (2006-2031) – Blaby (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	92,526	95,377	99,369	103,471	107,567	111,403
	0.0%	3.1%	7.4%	11.8%	16.3%	20.4%
Housing Numbers	38,554	40,085	42,257	44,440	46,537	48,615
	0.0%	4.0%	9.6%	15.3%	20.7%	26.1%
Employment	49,697	48,678	51,520	52,406	53,493	54,667
	0.0%	-2.1%	3.7%	5.5%	7.6%	10.0%

Figure A3.8: Projection summary statistics (2006-2031) – Blaby (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	92,526	94,523	96,291	97,958	99,465	100,654
	0.0%	2.2%	4.1%	5.9%	7.5%	8.8%
Housing Numbers	38,554	39,760	41,077	42,312	43,409	44,455
	0.0%	3.1%	6.5%	9.7%	12.6%	15.3%
Employment	49,697	48,150	49,604	49,108	48,793	48,532
	0.0%	-3.1%	-0.2%	-1.2%	-1.8%	-2.3%

Population change

Figure A3.9: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Blaby



CHARNWOOD

Summary of projections

Figure A3.10: Summary of projections 2006 to 2031 – annual - Charnwood						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	1,493	0.9%	885	1.4%	494	0.6%
PROJ 2 (zero net-migration)	564	0.4%	490	0.8%	-68	-0.1%
PROJ 3 (zero employment growth)	676	0.4%	537	0.8%	0	0.0%
PROJ 4 (5% employment growth	953	0.6%	655	1.0%	168	0.2%
PROJ 5 (10% employment growth)	1,230	0.8%	773	1.2%	336	0.4%
PROJ 6 (Past build-rates)	1,065	0.7%	703	1.1%	236	0.3%

Figure A3.11: Summary of projections 2006 to 2031 – total - Charnwood						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	37,322	23.4%	22,113	34.2%	12,362	14.7%
PROJ 2 (zero net-migration)	14,092	8.8%	12,247	18.9%	-1,694	-2.0%
PROJ 3 (zero employment growth)	16,891	10.6%	13,435	20.8%	0	0.0%
PROJ 4 (5% employment growth	23,825	14.9%	16,381	25.3%	4,196	5.0%
PROJ 5 (10% employment growth)	30,761	19.3%	19,327	29.9%	8,392	10.0%
PROJ 6 (Past build-rates)	26,636	16.7%	17,575	27.2%	5,896	7.0%

Projections in five year bands

Figure A3.12: Projection summary statistics (2006-2031) – Charnwood (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	159,578	167,722	174,813	182,369	190,004	196,900
	0.0%	5.1%	9.5%	14.3%	19.1%	23.4%
Housing Numbers	64,626	68,515	73,419	78,184	82,405	86,739
	0.0%	6.0%	13.6%	21.0%	27.5%	34.2%
Employment	83,921	84,923	90,624	92,498	94,134	96,283
	0.0%	1.2%	8.0%	10.2%	12.2%	14.7%

Figure A3.13: Projection summary statistics (2006-2031) – Charnwood (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	159,578 0.0%	165,902 4.0%	168,302 5.5%	170,738 7.0%	172,747 8.3%	173,670 8.8%
Housing Numbers	64,626 0.0%	67,931 5.1%	71,095 10.0%	73,587 13.9%	75,247 16.4%	76,873 18.9%
Employment	83,921 0.0%	83,815 -0.1%	86,451 3.0%	85,048 1.3%	83,396 -0.6%	82,227 -2.0%

Figure A3.14: Projection summary statistics (2006-2031) – Charnwood (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	159,578 0.0%	166,121 4.1%	169,087 6.0%	172,140 7.9%	174,827 9.6%	176,469 10.6%
Housing Numbers	64,626 0.0%	68,001 5.2%	71,375 10.4%	74,141 14.7%	76,109 17.8%	78,062 20.8%
Employment	83,921 0.0%	83,949 0.0%	86,954 3.6%	85,946 2.4%	84,690 0.9%	83,921 0.0%

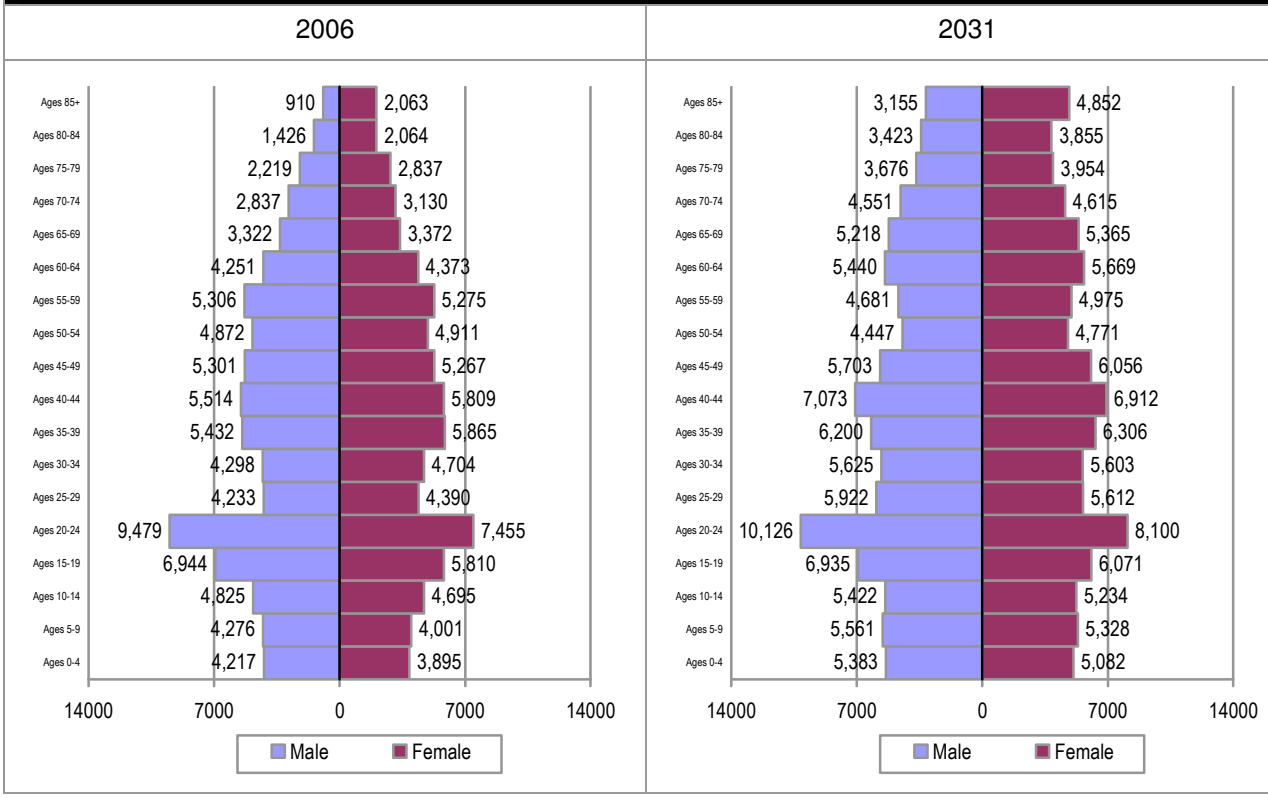
Figure A3.15: Projection summary statistics (2006-2031) – Charnwood (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	159,578 0.0%	166,664 4.4%	171,030 7.2%	175,612 10.0%	179,978 12.8%	183,403 14.9%
Housing Numbers	64,626 0.0%	68,176 5.5%	72,069 11.5%	75,513 16.8%	78,246 21.1%	81,007 25.3%
Employment	83,921 0.0%	84,279 0.4%	88,200 5.1%	88,170 5.1%	87,895 4.7%	88,117 5.0%

Figure A3.16: Projection summary statistics (2006-2031) – Charnwood (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	159,578 0.0%	167,208 4.8%	172,974 8.4%	179,084 12.2%	185,130 16.0%	190,339 19.3%
Housing Numbers	64,626 0.0%	68,350 5.8%	72,763 12.6%	76,886 19.0%	80,384 24.4%	83,953 29.9%
Employment	83,921 0.0%	84,610 0.8%	89,445 6.6%	90,394 7.7%	91,101 8.6%	92,313 10.0%

Figure A3.17: Projection summary statistics (2006-2031) – Charnwood (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	159,578	166,884	171,818	177,019	182,066	186,214
	0.0%	4.6%	7.7%	10.9%	14.1%	16.7%
Housing Numbers	64,626	68,246	72,350	76,069	79,113	82,201
	0.0%	5.6%	12.0%	17.7%	22.4%	27.2%
Employment	83,921	84,413	88,704	89,071	89,195	89,817
	0.0%	0.6%	5.7%	6.1%	6.3%	7.0%

Population change

Figure A3.18: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Charnwood



HARBOROUGH

Summary of projections

Figure A3.19: Summary of projections 2006 to 2031 – annual - Harborough						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	829	1.0%	477	1.4%	201	0.5%
PROJ 2 (zero net-migration)	44	0.1%	166	0.5%	-226	-0.5%
PROJ 3 (zero employment growth)	459	0.6%	330	1.0%	0	0.0%
PROJ 4 (5% employment growth	615	0.8%	392	1.2%	85	0.2%
PROJ 5 (10% employment growth)	771	1.0%	454	1.3%	170	0.4%
PROJ 6 (Past build-rates)	678	0.8%	417	1.2%	119	0.3%

Figure A3.20: Summary of projections 2006 to 2031 – total - Harborough						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	20,727	25.6%	11,921	35.0%	5,023	11.8%
PROJ 2 (zero net-migration)	1,089	1.3%	4,144	12.2%	-5,643	-13.3%
PROJ 3 (zero employment growth)	11,479	14.2%	8,258	24.3%	0	0.0%
PROJ 4 (5% employment growth	15,382	19.0%	9,804	28.8%	2,120	5.0%
PROJ 5 (10% employment growth)	19,286	23.8%	11,350	33.4%	4,240	10.0%
PROJ 6 (Past build-rates)	16,949	20.9%	10,425	30.6%	2,971	7.0%

Projections in five year bands

Figure A3.21: Projection summary statistics (2006-2031) – Harborough (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	81,103 0.0%	85,584 5.5%	90,025 11.0%	94,196 16.1%	98,167 21.0%	101,830 25.6%
Housing Numbers	34,020 0.0%	36,283 6.7%	38,794 14.0%	41,231 21.2%	43,573 28.1%	45,941 35.0%
Employment	42,401 0.0%	42,113 -0.7%	44,866 5.8%	45,658 7.7%	46,538 9.8%	47,424 11.8%

Figure A3.22: Projection summary statistics (2006-2031) – Harborough (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	81,103	83,984	84,297	84,021	83,305	82,192
	0.0%	3.6%	3.9%	3.6%	2.7%	1.3%
Housing Numbers	34,020	35,660	36,547	37,227	37,725	38,164
	0.0%	4.8%	7.4%	9.4%	10.9%	12.2%
Employment	42,401	41,172	41,464	39,846	38,319	36,759
	0.0%	-2.9%	-2.2%	-6.0%	-9.6%	-13.3%

Figure A3.23: Projection summary statistics (2006-2031) – Harborough (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	81,103	84,830	87,328	89,404	91,168	92,582
	0.0%	4.6%	7.7%	10.2%	12.4%	14.2%
Housing Numbers	34,020	35,990	37,736	39,345	40,819	42,278
	0.0%	5.8%	10.9%	15.7%	20.0%	24.3%
Employment	42,401	41,670	43,264	42,921	42,668	42,401
	0.0%	-1.7%	2.0%	1.2%	0.6%	0.0%

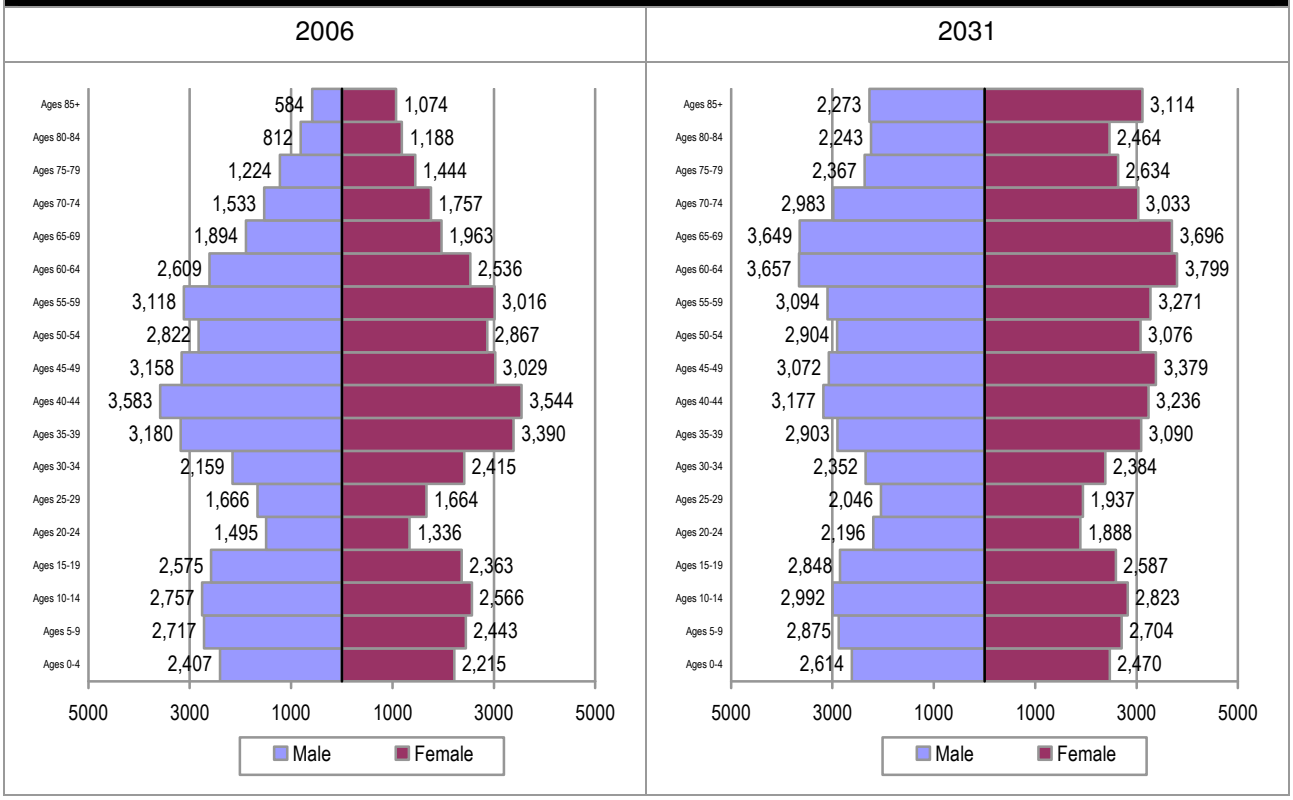
Figure A3.24: Projection summary statistics (2006-2031) – Harborough (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	81,103	85,148	88,466	91,426	94,122	96,485
	0.0%	5.0%	9.1%	12.7%	16.1%	19.0%
Housing Numbers	34,020	36,114	38,183	40,141	41,981	43,824
	0.0%	6.2%	12.2%	18.0%	23.4%	28.8%
Employment	42,401	41,857	43,940	44,076	44,301	44,521
	0.0%	-1.3%	3.6%	3.9%	4.5%	5.0%

Figure A3.25: Projection summary statistics (2006-2031) – Harborough (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	81,103	85,467	89,605	93,449	97,077	100,389
	0.0%	5.4%	10.5%	15.2%	19.7%	23.8%
Housing Numbers	34,020	36,238	38,629	40,937	43,144	45,370
	0.0%	6.5%	13.5%	20.3%	26.8%	33.4%
Employment	42,401	42,044	44,617	45,231	45,935	46,642
	0.0%	-0.8%	5.2%	6.7%	8.3%	10.0%

Figure A3.26: Projection summary statistics (2006-2031) – Harborough (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	81,103	85,276	88,923	92,238	95,308	98,052
	0.0%	5.1%	9.6%	13.7%	17.5%	20.9%
Housing Numbers	34,020	36,163	38,362	40,460	42,448	44,445
	0.0%	6.3%	12.8%	18.9%	24.8%	30.6%
Employment	42,401	41,932	44,212	44,540	44,957	45,372
	0.0%	-1.1%	4.3%	5.0%	6.0%	7.0%

Population change

Figure A3.27: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Harborough



HINCKLEY & BOSWORTH

Summary of projections

Figure A3.28: Summary of projections 2006 to 2031 – annual - Hinckley & Bosworth						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	428	0.4%	328	0.7%	-87	-0.2%
PROJ 2 (zero net-migration)	45	0.0%	170	0.4%	-299	-0.6%
PROJ 3 (zero employment growth)	586	0.6%	392	0.9%	0	0.0%
PROJ 4 (5% employment growth	780	0.8%	472	1.1%	107	0.2%
PROJ 5 (10% employment growth)	974	0.9%	552	1.2%	215	0.4%
PROJ 6 (Past build-rates)	763	0.7%	465	1.1%	98	0.2%

Figure A3.29: Summary of projections 2006 to 2031 – total - Hinckley & Bosworth						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	10,701	10.4%	8,189	18.5%	-2,182	-4.1%
PROJ 2 (zero net-migration)	1,130	1.1%	4,257	9.6%	-7,480	-13.9%
PROJ 3 (zero employment growth)	14,643	14.2%	9,808	22.2%	0	0.0%
PROJ 4 (5% employment growth	19,492	18.9%	11,800	26.7%	2,685	5.0%
PROJ 5 (10% employment growth)	24,342	23.6%	13,793	31.2%	5,370	10.0%
PROJ 6 (Past build-rates)	19,065	18.5%	11,625	26.3%	2,448	4.6%

Projections in five year bands

Figure A3.30: Projection summary statistics (2006-2031) – Hinckley & Bosworth (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	103,216 0.0%	105,897 2.6%	108,425 5.0%	110,660 7.2%	112,557 9.0%	113,917 10.4%
Housing Numbers	44,278 0.0%	46,008 3.9%	47,924 8.2%	49,649 12.1%	51,124 15.5%	52,467 18.5%
Employment	53,700 0.0%	51,941 -3.3%	53,347 -0.7%	52,768 -1.7%	52,182 -2.8%	51,518 -4.1%

Figure A3.31: Projection summary statistics (2006-2031) – Hinckley & Bosworth (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	103,216 0.0%	105,117 1.8%	105,633 2.3%	105,701 2.4%	105,316 2.0%	104,346 1.1%
Housing Numbers	44,278 0.0%	45,698 3.2%	46,798 5.7%	47,627 7.6%	48,163 8.8%	48,535 9.6%
Employment	53,700 0.0%	51,475 -4.1%	51,656 -3.8%	49,868 -7.1%	48,083 -10.5%	46,220 -13.9%

Figure A3.32: Projection summary statistics (2006-2031) – Hinckley & Bosworth (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	103,216 0.0%	106,218 2.9%	109,575 6.2%	112,702 9.2%	115,539 11.9%	117,859 14.2%
Housing Numbers	44,278 0.0%	46,136 4.2%	48,387 9.3%	50,481 14.0%	52,343 18.2%	54,086 22.2%
Employment	53,700 0.0%	52,133 -2.9%	54,044 0.6%	53,962 0.5%	53,869 0.3%	53,700 0.0%

Figure A3.33: Projection summary statistics (2006-2031) – Hinckley & Bosworth (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	103,216 0.0%	106,613 3.3%	110,990 7.5%	115,214 11.6%	119,208 15.5%	122,708 18.9%
Housing Numbers	44,278 0.0%	46,294 4.6%	48,958 10.6%	51,506 16.3%	53,843 21.6%	56,078 26.7%
Employment	53,700 0.0%	52,370 -2.5%	54,900 2.2%	55,432 3.2%	55,946 4.2%	56,385 5.0%

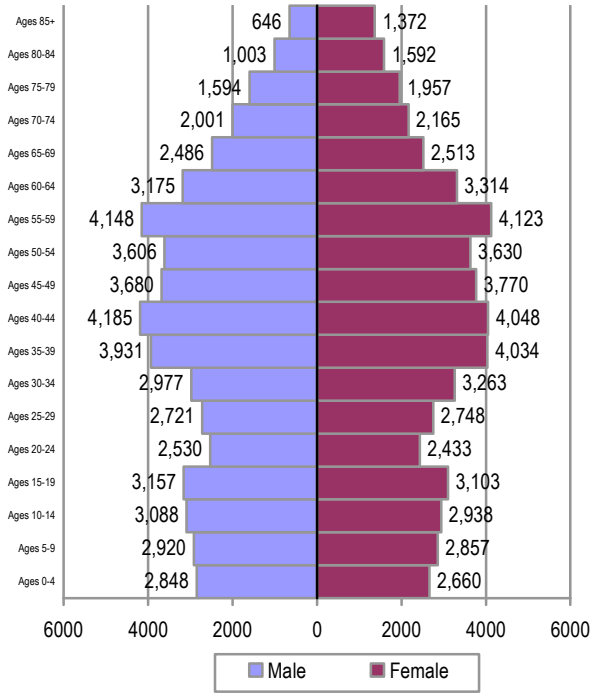
Figure A3.34: Projection summary statistics (2006-2031) – Hinckley & Bosworth (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	103,216 0.0%	107,008 3.7%	112,405 8.9%	117,727 14.1%	122,878 19.0%	127,558 23.6%
Housing Numbers	44,278 0.0%	46,451 4.9%	49,529 11.9%	52,530 18.6%	55,344 25.0%	58,071 31.2%
Employment	53,700 0.0%	52,606 -2.0%	55,757 3.8%	56,902 6.0%	58,023 8.0%	59,070 10.0%

Figure A3.35: Projection summary statistics (2006-2031) – Hinckley & Bosworth (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	103,216 0.0%	106,578 3.3%	110,865 7.4%	114,993 11.4%	118,885 15.2%	122,281 18.5%
Housing Numbers	44,278 0.0%	46,280 4.5%	48,908 10.5%	51,415 16.1%	53,711 21.3%	55,903 26.3%
Employment	53,700 0.0%	52,349 -2.5%	54,825 2.1%	55,303 3.0%	55,763 3.8%	56,149 4.6%

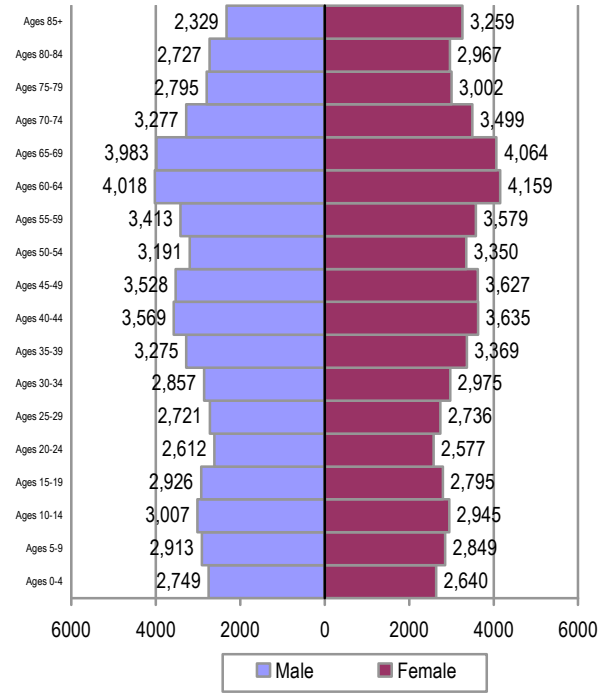
Population change

Figure A3.36: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Hinckley & Bosworth

2006



2031



LEICESTER

Summary of projections

Figure A3.37: Summary of projections 2006 to 2031 – annual - Leicester						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	3,173	1.1%	1,821	1.5%	1,254	0.9%
PROJ 2 (zero net-migration)	3,140	1.1%	1,808	1.5%	1,238	0.9%
PROJ 3 (zero employment growth)	602	0.2%	757	0.6%	0	0.0%
PROJ 4 (5% employment growth	1,145	0.4%	982	0.8%	265	0.2%
PROJ 5 (10% employment growth)	1,688	0.6%	1,207	1.0%	530	0.4%
PROJ 6 (Past build-rates)	973	0.3%	911	0.8%	181	0.1%

Figure A3.38: Summary of projections 2006 to 2031 – total - Leicester						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	79,329	26.7%	45,536	37.8%	31,361	23.7%
PROJ 2 (zero net-migration)	78,510	26.5%	45,197	37.5%	30,962	23.4%
PROJ 3 (zero employment growth)	15,052	5.1%	18,936	15.7%	0	0.0%
PROJ 4 (5% employment growth	28,631	9.6%	24,555	20.4%	6,625	5.0%
PROJ 5 (10% employment growth)	42,209	14.2%	30,174	25.0%	13,250	10.0%
PROJ 6 (Past build-rates)	24,331	8.2%	22,775	18.9%	4,527	3.4%

Projections in five year bands

Figure A3.39: Projection summary statistics (2006-2031) – Leicester (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	296,753 0.0%	309,874 4.4%	325,273 9.6%	342,326 15.4%	359,538 21.2%	376,082 26.7%
Housing Numbers	120,508 0.0%	127,488 5.8%	136,719 13.5%	146,458 21.5%	156,142 29.6%	166,044 37.8%
Employment	132,496 0.0%	135,998 2.6%	146,809 10.8%	152,202 14.9%	157,721 19.0%	163,857 23.7%

Figure A3.40: Projection summary statistics (2006-2031) – Leicester (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	296,753	309,814	325,055	341,927	358,936	375,263
	0.0%	4.4%	9.5%	15.2%	21.0%	26.5%
Housing Numbers	120,508	127,466	136,633	146,295	155,893	165,705
	0.0%	5.8%	13.4%	21.4%	29.4%	37.5%
Employment	132,496	135,966	146,689	151,991	157,417	163,458
	0.0%	2.6%	10.7%	14.7%	18.8%	23.4%

Figure A3.41: Projection summary statistics (2006-2031) – Leicester (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	296,753	305,167	308,157	311,036	312,317	311,805
	0.0%	2.8%	3.8%	4.8%	5.2%	5.1%
Housing Numbers	120,508	125,711	129,970	133,688	136,639	139,444
	0.0%	4.3%	7.9%	10.9%	13.4%	15.7%
Employment	132,496	133,472	137,408	135,615	133,860	132,496
	0.0%	0.7%	3.7%	2.4%	1.0%	0.0%

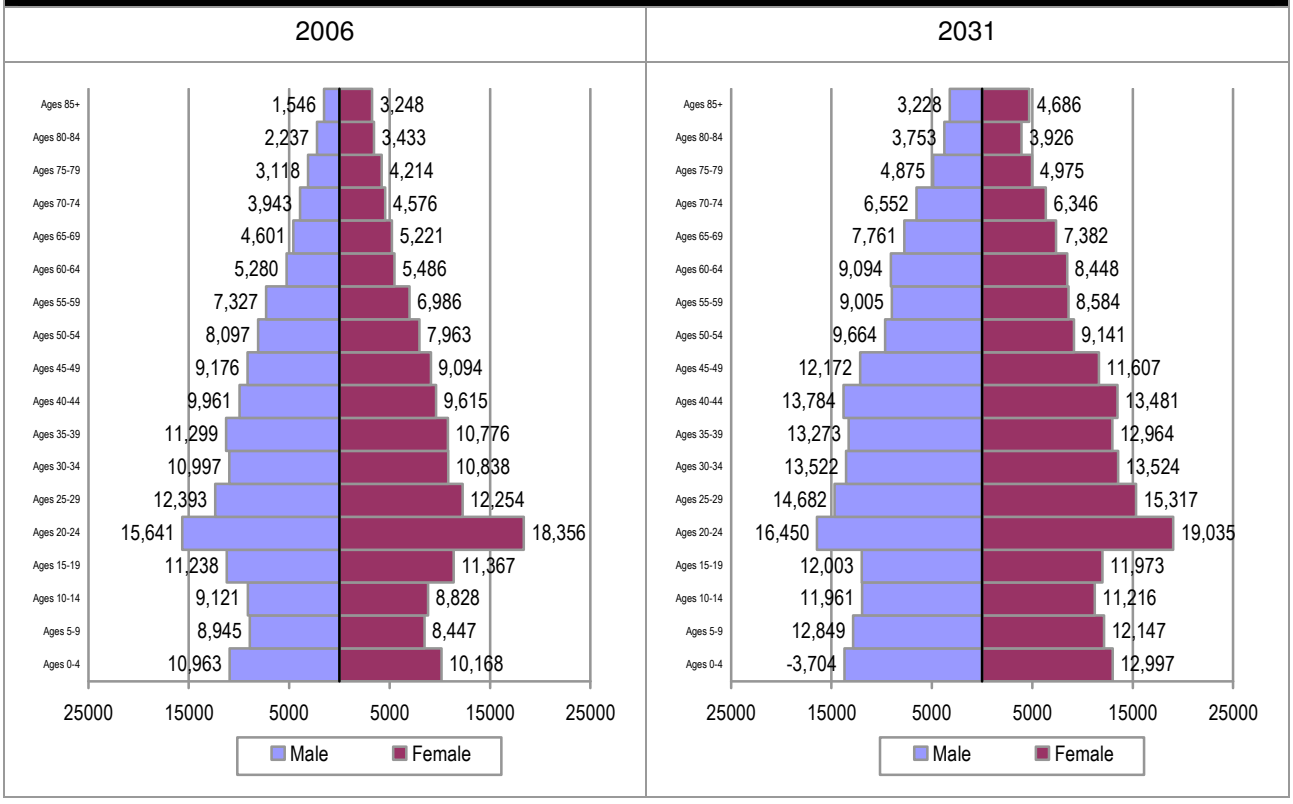
Figure A3.42: Projection summary statistics (2006-2031) – Leicester (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	296,753	306,161	311,772	317,646	322,292	325,384
	0.0%	3.2%	5.1%	7.0%	8.6%	9.6%
Housing Numbers	120,508	126,086	131,396	136,385	140,759	145,063
	0.0%	4.6%	9.0%	13.2%	16.8%	20.4%
Employment	132,496	134,006	139,394	139,119	138,900	139,121
	0.0%	1.1%	5.2%	5.0%	4.8%	5.0%

Figure A3.43: Projection summary statistics (2006-2031) – Leicester (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	296,753	307,156	315,388	324,256	332,268	338,962
	0.0%	3.5%	6.3%	9.3%	12.0%	14.2%
Housing Numbers	120,508	126,462	132,822	139,083	144,879	150,682
	0.0%	4.9%	10.2%	15.4%	20.2%	25.0%
Employment	132,496	134,539	141,380	142,623	143,941	145,746
	0.0%	1.5%	6.7%	7.6%	8.6%	10.0%

Figure A3.44: Projection summary statistics (2006-2031) – Leicester (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	296,753	305,846	310,627	315,553	319,134	321,084
	0.0%	3.1%	4.7%	6.3%	7.5%	8.2%
Housing Numbers	120,508	125,967	130,944	135,531	139,454	143,284
	0.0%	4.5%	8.7%	12.5%	15.7%	18.9%
Employment	132,496	133,837	138,765	138,009	137,304	137,023
	0.0%	1.0%	4.7%	4.2%	3.6%	3.4%

Population change

Figure A3.45: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Leicester



MELTON

Summary of projections

Figure A3.46: Summary of projections 2006 to 2031 – annual - Melton						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	150	0.3%	135	0.7%	-35	-0.1%
PROJ 2 (zero net-migration)	-8	0.0%	72	0.3%	-125	-0.5%
PROJ 3 (zero employment growth)	211	0.4%	160	0.8%	0	0.0%
PROJ 4 (5% employment growth	304	0.6%	197	0.9%	53	0.2%
PROJ 5 (10% employment growth)	397	0.8%	235	1.1%	106	0.4%
PROJ 6 (Past build-rates)	273	0.6%	185	0.9%	35	0.1%

Figure A3.47: Summary of projections 2006 to 2031 – total - Melton						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	3,745	7.7%	3,381	16.3%	-878	-3.3%
PROJ 2 (zero net-migration)	-192	-0.4%	1,796	8.6%	-3,128	-11.8%
PROJ 3 (zero employment growth)	5,282	10.9%	4,000	19.2%	0	0.0%
PROJ 4 (5% employment growth	7,599	15.7%	4,933	23.7%	1,324	5.0%
PROJ 5 (10% employment growth)	9,916	20.4%	5,866	28.2%	2,648	10.0%
PROJ 6 (Past build-rates)	6,833	14.1%	4,625	22.2%	886	3.3%

Projections in five year bands

Figure A3.48: Projection summary statistics (2006-2031) – Melton (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	48,492	49,409	50,284	51,101	51,790	52,237
	0.0%	1.9%	3.7%	5.4%	6.8%	7.7%
Housing Numbers	20,794	21,445	22,307	23,067	23,647	24,175
	0.0%	3.1%	7.3%	10.9%	13.7%	16.3%
Employment	26,483	25,756	26,648	26,115	25,791	25,605
	0.0%	-2.7%	0.6%	-1.4%	-2.6%	-3.3%

Figure A3.49: Projection summary statistics (2006-2031) – Melton (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	48,492	49,089	49,140	49,068	48,817	48,300
	0.0%	1.2%	1.3%	1.2%	0.7%	-0.4%
Housing Numbers	20,794	21,319	21,851	22,250	22,453	22,590
	0.0%	2.5%	5.1%	7.0%	8.0%	8.6%
Employment	26,483	25,559	25,934	24,894	24,061	23,355
	0.0%	-3.5%	-2.1%	-6.0%	-9.1%	-11.8%

Figure A3.50: Projection summary statistics (2006-2031) – Melton (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	48,492	49,534	50,731	51,894	52,950	53,774
	0.0%	2.1%	4.6%	7.0%	9.2%	10.9%
Housing Numbers	20,794	21,494	22,486	23,386	24,113	24,794
	0.0%	3.4%	8.1%	12.5%	16.0%	19.2%
Employment	26,483	25,833	26,926	26,591	26,466	26,483
	0.0%	-2.5%	1.7%	0.4%	-0.1%	0.0%

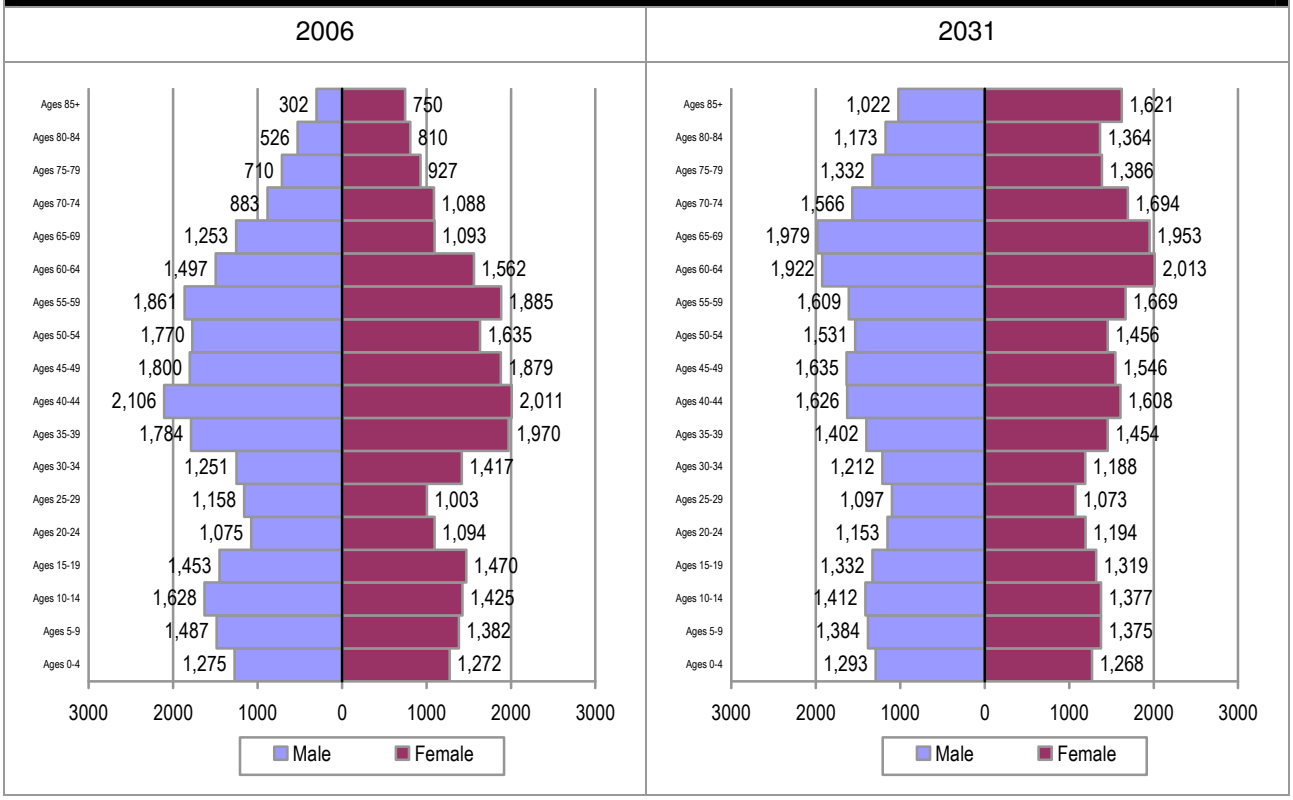
Figure A3.51: Projection summary statistics (2006-2031) – Melton (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	48,492	49,722	51,405	53,091	54,701	56,091
	0.0%	2.5%	6.0%	9.5%	12.8%	15.7%
Housing Numbers	20,794	21,568	22,754	23,867	24,816	25,727
	0.0%	3.7%	9.4%	14.8%	19.3%	23.7%
Employment	26,483	25,948	27,347	27,310	27,484	27,808
	0.0%	-2.0%	3.3%	3.1%	3.8%	5.0%

Figure A3.52: Projection summary statistics (2006-2031) – Melton (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	48,492	49,910	52,079	54,288	56,450	58,408
	0.0%	2.9%	7.4%	12.0%	16.4%	20.4%
Housing Numbers	20,794	21,643	23,023	24,347	25,518	26,660
	0.0%	4.1%	10.7%	17.1%	22.7%	28.2%
Employment	26,483	26,064	27,767	28,029	28,502	29,131
	0.0%	-1.6%	4.8%	5.8%	7.6%	10.0%

Figure A3.53: Projection summary statistics (2006-2031) – Melton (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	48,492	49,660	51,182	52,696	54,122	55,325
	0.0%	2.4%	5.5%	8.7%	11.6%	14.1%
Housing Numbers	20,794	21,544	22,666	23,708	24,583	25,419
	0.0%	3.6%	9.0%	14.0%	18.2%	22.2%
Employment	26,483	25,910	27,208	27,072	27,148	27,370
	0.0%	-2.2%	2.7%	2.2%	2.5%	3.3%

Population change

Figure A3.54: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Melton



NORTH WEST LEICESTERSHIRE

Summary of projections

Figure A3.55: Summary of projections 2006 to 2031 – annual - North West Leicestershire						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	611	0.7%	352	0.9%	136	0.3%
PROJ 2 (zero net-migration)	113	0.1%	155	0.4%	-143	-0.3%
PROJ 3 (zero employment growth)	369	0.4%	256	0.7%	0	0.0%
PROJ 4 (5% employment growth	536	0.6%	322	0.8%	93	0.2%
PROJ 5 (10% employment growth)	703	0.8%	388	1.0%	187	0.4%
PROJ 6 (Past build-rates)	621	0.7%	356	0.9%	141	0.3%

Figure A3.56: Summary of projections 2006 to 2031 – total - North West Leicestershire						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	15,276	17.1%	8,802	23.1%	3,390	7.3%
PROJ 2 (zero net-migration)	2,830	3.2%	3,865	10.1%	-3,573	-7.6%
PROJ 3 (zero employment growth)	9,216	10.3%	6,398	16.8%	0	0.0%
PROJ 4 (5% employment growth	13,392	15.0%	8,054	21.1%	2,336	5.0%
PROJ 5 (10% employment growth)	17,566	19.7%	9,710	25.5%	4,672	10.0%
PROJ 6 (Past build-rates)	15,525	17.4%	8,900	23.4%	3,530	7.6%

Projections in five year bands

Figure A3.57: Projection summary statistics (2006-2031) – North West Leicestershire (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	89,261	92,276	95,650	98,860	101,882	104,537
	0.0%	3.4%	7.2%	10.8%	14.1%	17.1%
Housing Numbers	38,114	39,456	41,368	43,280	45,083	46,915
	0.0%	3.5%	8.5%	13.6%	18.3%	23.1%
Employment	46,720	45,892	48,348	48,646	49,307	50,111
	0.0%	-1.8%	3.5%	4.1%	5.5%	7.3%

Figure A3.58: Projection summary statistics (2006-2031) – North West Leicestershire (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	89,261	91,276	92,058	92,453	92,492	92,091
	0.0%	2.3%	3.1%	3.6%	3.6%	3.2%
Housing Numbers	38,114	39,059	39,936	40,731	41,371	41,979
	0.0%	2.5%	4.8%	6.9%	8.5%	10.1%
Employment	46,720	45,285	46,145	44,870	43,954	43,147
	0.0%	-3.1%	-1.2%	-4.0%	-5.9%	-7.6%

Figure A3.59: Projection summary statistics (2006-2031) – North West Leicestershire (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	89,261	91,789	93,900	95,740	97,309	98,477
	0.0%	2.8%	5.2%	7.3%	9.0%	10.3%
Housing Numbers	38,114	39,263	40,671	42,039	43,275	44,511
	0.0%	3.0%	6.7%	10.3%	13.5%	16.8%
Employment	46,720	45,597	47,275	46,807	46,700	46,720
	0.0%	-2.4%	1.2%	0.2%	0.0%	0.0%

Figure A3.60: Projection summary statistics (2006-2031) – North West Leicestershire (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	89,261	92,125	95,106	97,890	100,460	102,653
	0.0%	3.2%	6.5%	9.7%	12.5%	15.0%
Housing Numbers	38,114	39,396	41,151	42,894	44,521	46,168
	0.0%	3.4%	8.0%	12.5%	16.8%	21.1%
Employment	46,720	45,800	48,015	48,075	48,497	49,056
	0.0%	-2.0%	2.8%	2.9%	3.8%	5.0%

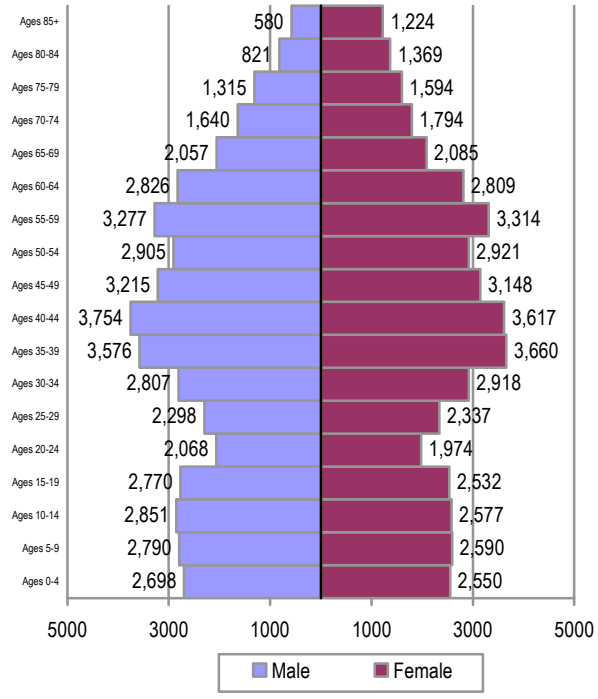
Figure A3.61: Projection summary statistics (2006-2031) – North West Leicestershire (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	89,261	92,460	96,310	100,039	103,609	106,827
	0.0%	3.6%	7.9%	12.1%	16.1%	19.7%
Housing Numbers	38,114	39,529	41,632	43,749	45,766	47,823
	0.0%	3.7%	9.2%	14.8%	20.1%	25.5%
Employment	46,720	46,004	48,753	49,341	50,292	51,392
	0.0%	-1.5%	4.4%	5.6%	7.6%	10.0%

Figure A3.62: Projection summary statistics (2006-2031) – North West Leicestershire (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	89,261 0.0%	92,296 3.4%	95,721 7.2%	98,988 10.9%	102,069 14.3%	104,786 17.4%
Housing Numbers	38,114 0.0%	39,464 3.5%	41,397 8.6%	43,331 13.7%	45,157 18.5%	47,014 23.4%
Employment	46,720 0.0%	45,904 -1.7%	48,392 3.6%	48,722 4.3%	49,414 5.8%	50,250 7.6%

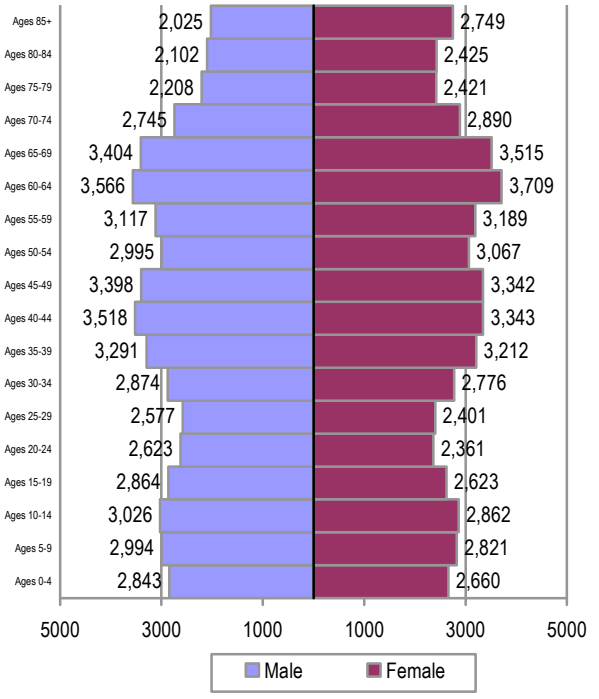
Population change

Figure A3.63: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– North West Leicestershire

2006



2031



OADBY & WIGSTON

Summary of projections

Figure A3.64: Summary of projections 2006 to 2031 – annual - Oadby & Wigston						
Projection	Population growth		Housing numbers		Employment growth	
	Per annum	% change	Per annum	% change	Per annum	% change
PROJ 1 (trend-based)	382	0.7%	228	1.0%	153	0.5%
PROJ 2 (zero net-migration)	44	0.1%	97	0.4%	-44	-0.2%
PROJ 3 (zero employment growth)	120	0.2%	126	0.5%	0	0.0%
PROJ 4 (5% employment growth	222	0.4%	166	0.7%	59	0.2%
PROJ 5 (10% employment growth)	323	0.6%	205	0.9%	119	0.4%
PROJ 6 (Past build-rates)	35	0.1%	93	0.4%	-50	-0.2%

Figure A3.65: Summary of projections 2006 to 2031 – total - Oadby & Wigston						
Projection	Population growth		Housing numbers		Employment growth	
	Total	% change	Total	% change	Total	% change
PROJ 1 (trend-based)	9,544	16.4%	5,693	24.6%	3,819	12.9%
PROJ 2 (zero net-migration)	1,111	1.9%	2,418	10.5%	-1,112	-3.8%
PROJ 3 (zero employment growth)	3,012	5.2%	3,157	13.7%	0	0.0%
PROJ 4 (5% employment growth	5,546	9.5%	4,140	17.9%	1,481	5.0%
PROJ 5 (10% employment growth)	8,079	13.9%	5,124	22.2%	2,963	10.0%
PROJ 6 (Past build-rates)	870	1.5%	2,325	10.1%	-1,252	-4.2%

Projections in five year bands

Figure A3.66: Projection summary statistics (2006-2031) – Oadby & Wigston (PROJ 1 – trend-based)						
Projection	2006	2011	2016	2021	2026	2031
Population	58,085 0.0%	59,207 1.9%	61,132 5.2%	63,320 9.0%	65,553 12.9%	67,629 16.4%
Housing Numbers	23,115 0.0%	23,726 2.6%	25,090 8.5%	26,397 14.2%	27,535 19.1%	28,807 24.6%
Employment	29,629 0.0%	29,749 0.4%	31,682 6.9%	32,112 8.4%	32,660 10.2%	33,448 12.9%

Figure A3.67: Projection summary statistics (2006-2031) – Oadby & Wigston (PROJ 2 – zero net-migration)						
Projection	2006	2011	2016	2021	2026	2031
Population	58,085	58,527	58,711	59,025	59,235	59,196
	0.0%	0.8%	1.1%	1.6%	2.0%	1.9%
Housing Numbers	23,115	23,524	24,305	24,866	25,158	25,533
	0.0%	1.8%	5.2%	7.6%	8.8%	10.5%
Employment	29,629	29,348	30,199	29,509	28,914	28,517
	0.0%	-0.9%	1.9%	-0.4%	-2.4%	-3.8%

Figure A3.68: Projection summary statistics (2006-2031) – Oadby & Wigston (PROJ 3 – zero employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	58,085	58,680	59,257	59,993	60,659	61,097
	0.0%	1.0%	2.0%	3.3%	4.4%	5.2%
Housing Numbers	23,115	23,569	24,482	25,211	25,694	26,271
	0.0%	2.0%	5.9%	9.1%	11.2%	13.7%
Employment	29,629	29,438	30,534	30,095	29,759	29,629
	0.0%	-0.6%	3.1%	1.6%	0.4%	0.0%

Figure A3.69: Projection summary statistics (2006-2031) – Oadby & Wigston (PROJ 4 – 5% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	58,085	58,884	59,984	61,284	62,557	63,631
	0.0%	1.4%	3.3%	5.5%	7.7%	9.5%
Housing Numbers	23,115	23,630	24,718	25,671	26,408	27,255
	0.0%	2.2%	6.9%	11.1%	14.2%	17.9%
Employment	29,629	29,559	30,979	30,878	30,884	31,110
	0.0%	-0.2%	4.6%	4.2%	4.2%	5.0%

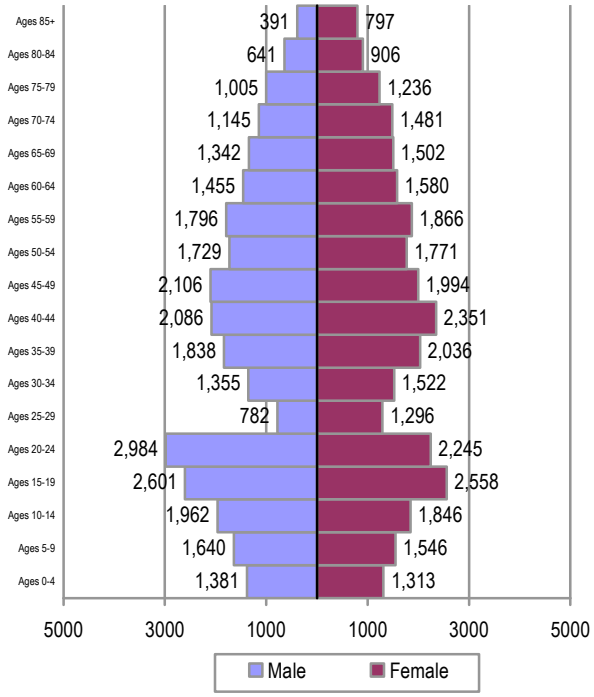
Figure A3.70: Projection summary statistics (2006-2031) – Oadby & Wigston (PROJ 5 – 10% employment growth)						
Projection	2006	2011	2016	2021	2026	2031
Population	58,085	59,088	60,712	62,574	64,456	66,164
	0.0%	1.7%	4.5%	7.7%	11.0%	13.9%
Housing Numbers	23,115	23,691	24,954	26,131	27,123	28,239
	0.0%	2.5%	8.0%	13.0%	17.3%	22.2%
Employment	29,629	29,680	31,424	31,660	32,009	32,592
	0.0%	0.2%	6.1%	6.9%	8.0%	10.0%

Figure A3.71: Projection summary statistics (2006-2031) – Oadby & Wigston (PROJ 6 – past build rates)						
Projection	2006	2011	2016	2021	2026	2031
Population	58,085 0.0%	58,507 0.7%	58,642 1.0%	58,902 1.4%	59,054 1.7%	58,955 1.5%
Housing Numbers	23,115 0.0%	23,518 1.7%	24,283 5.1%	24,822 7.4%	25,091 8.5%	25,440 10.1%
Employment	29,629 0.0%	29,336 -1.0%	30,157 1.8%	29,434 -0.7%	28,807 -2.8%	28,376 -4.2%

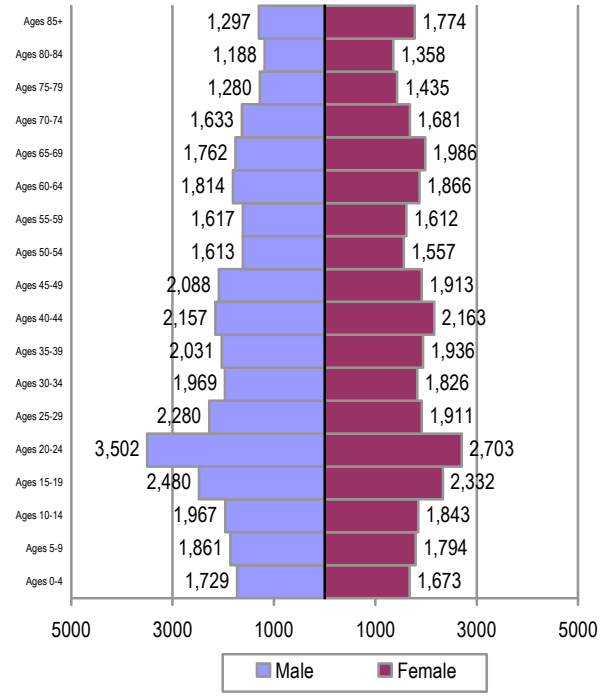
Population change

Figure A3.72: Distribution of Population 2006 and 2031 for PROJ 1 (trend-based)– Oadby & Wigston

2006



2031



Appendix 4 Impact of Changes in Headship Rates

A4.1 The analysis in Section 6 of the report showed that headship rates are projected to change in the future. In this appendix we look at the impact these changes have on household growth and housing numbers when compared with headship remaining at 2006 levels. This is intended to provide a sensitivity analysis. For our main projections we have used the CLG 2008-based household projection data to provide assumptions about headship. However, it is of interest to study the extent to which projected changes impact on housing requirements.

A4.2 Generally, headship rates are projected to increase in the future – this means that for many age/sex groups, an individual is more likely to be considered as the household reference person in the future than is the case now. Some of these changes are related to changes in the population (particularly ageing) whilst others are based on CLGs trend-based modelling.

A4.3 Whilst we believe that the CLG modelling is broadly reasonable we have concerns at both overall projected changes to headship and how this has been applied at a local level. The CLG projections look at trends in headship going back to 1971 and project forward. Recent events in the housing market have tended to see lower levels of household formation and generally lower levels of headship than might have been predicted based on long-term trends. The English Housing Survey (and its predecessor the Survey of English Housing) provides some support for short-term lack of change in headship by showing that average household sizes have not changed significantly over the past few years. We have therefore remodelled our key projections to see what the outputs would be if headship were held constant at 2006 levels.

A4.4 Nationally, it is estimated that around 16% of household growth is accounted for by assumptions about changes in headship rates with a slightly lower figure of around 14% in the East Midlands (for the period from 2008 to 2033). It is clear therefore that headship rate assumptions can have an impact on household growth projections and below we have provided an analysis based on our main trend-based projection of the impact the CLGs headship rate assumptions are making in each local authority area.

A4.5 The data shows that overall, **headship rates assumptions account for around 7% of household growth forecasts across the study area**. There are however significant differences by area with **Leicester showing a household growth that is 16% higher with CLG assumptions compared with constant headship; Charnwood also shows a high increase due to headship rates**. At the other end of the scale there are a number of areas where headship rate assumptions actually reduce the household growth – most notable amongst these is North West Leicestershire where constant headship actually shows a household growth around 10% higher than under CLG assumptions.

Figure A4.1: Impact of changing headship rates 2006 to 2031 by local authority (trend-based scenario)							
Area	H'holds 2006	H'holds 2031	Change	H'holds 2031 (constant headship)	Change from 2006	Difference	Impact of headship rates
Blaby	37,614	44,544	6,930	44,971	7,357	427	6.2%
Charnwood	63,050	84,624	21,574	82,376	19,326	-2,248	-10.4%
Harborough	33,190	44,820	11,630	44,844	11,654	24	0.2%
Hinckley & Bosworth	43,198	51,187	7,989	51,722	8,524	535	6.7%
Melton	20,287	23,586	3,299	23,796	3,509	210	6.4%
North West Leicestershire	37,184	45,771	8,587	46,572	9,388	801	9.3%
Oadby & Wigston	22,551	28,105	5,554	27,910	5,359	-195	-3.5%
Leicestershire	257,074	322,637	65,563	322,191	65,117	-446	-0.7%
Leicester	117,569	161,994	44,425	154,769	37,200	-7,225	-16.3%
Leicester & Leicestershire	374,643	484,631	109,988	476,960	102,317	-7,671	-7.0%

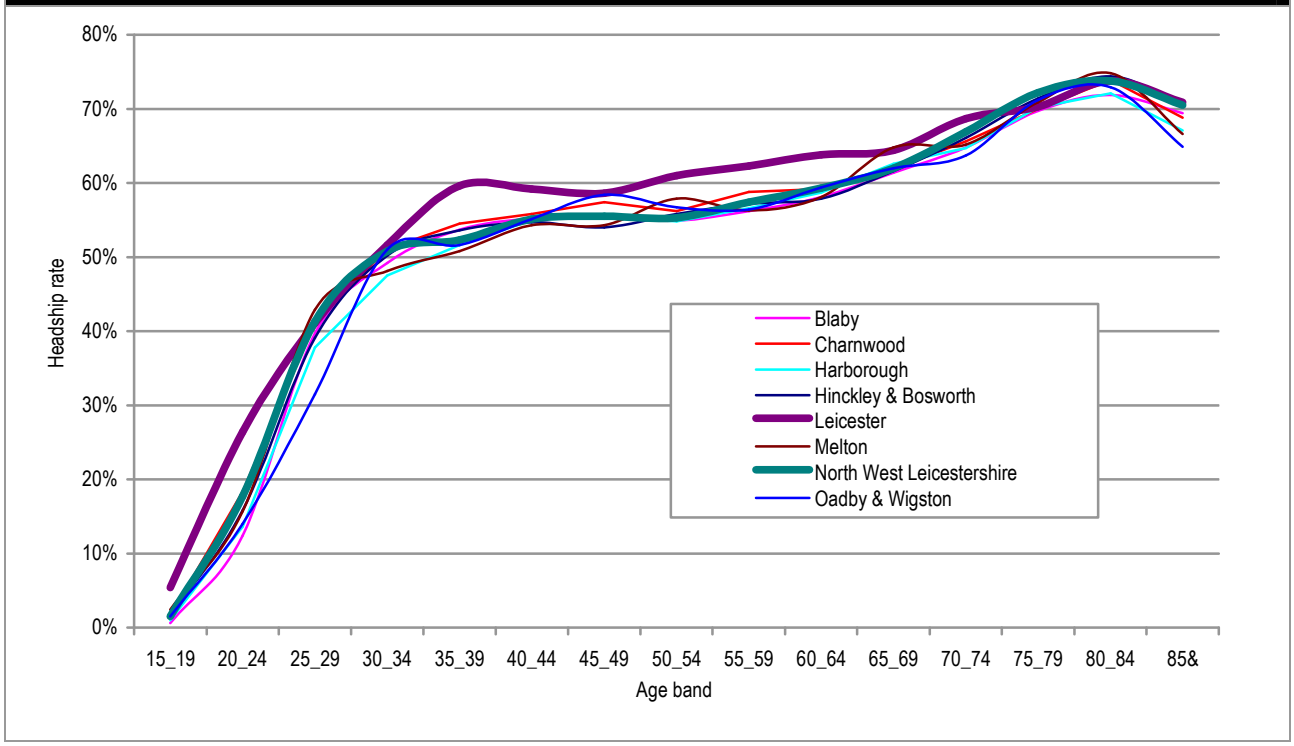
A4.6 The figures can perhaps be more easily compared by looking at annual (and 25-year) household growth under each of the above scenarios - again we have provided data from our main trend-based projection. The data shows that across the whole of the study area that the household growth goes from 4,400 per annum to 4,093 (down 7%). In Leicester the figure drops by 16% from 1,777 to 1,488 whilst Leicestershire as a whole shows little difference.

Figure A4.2: Household growth 2006 to 2031 under different headship assumptions (PROJ 1 trend-based projection)				
Area	CLG headship assumptions		Constant headship	
	Household growth 2006-2031	Annual household growth	Household growth 2006-2031	Annual household growth
Blaby	6,930	277	7,357	294
Charnwood	21,574	863	19,326	773
Harborough	11,630	465	11,654	466
Hinckley & Bosworth	7,989	320	8,524	341
Melton	3,299	132	3,509	140
North West Leicestershire	8,587	343	9,388	376
Oadby & Wigston	5,554	222	5,359	214
Leicestershire	65,563	2,623	65,117	2,605
Leicester	44,425	1,777	37,200	1,488
Leicester & Leicestershire	109,988	4,400	102,317	4,093

A4.7 To try to understand the reasons for different headship rate changes in different locations we have looked at the detailed data underlying the CLG figures. Below we have provided a figure showing estimated headship rates in each of the eight local authorities with Leicester and North West Leicestershire being particularly highlighted as these cases show the most extreme outputs.

A4.8 Whilst the data for North West Leicestershire generally follows the pattern for other areas in Leicestershire the figures for Leicester are generally higher. It is possible therefore that the high changes in headship in Leicester are due to larger changes in previous years (hence the pattern shown below). If this is the case then there would be some case to suggest such trends are not likely to continue and that the **CLG headship assumptions for Leicester may well facilitate overestimations of household growth**.

Figure A4.3: Headship rates 2006



Source: CLG 2008-based household projections

A4.9 We have not remodelled all of our scenarios to test the impact of changing headship rates as the figures produced using CLG assumptions remain as our main analysis of housing requirements. However, in using the data in this report to derive housing numbers **we urge that the authorities consider the impact of headship rates and whether or not there is any justification in changing housing numbers to reflect the fact that our evidence would suggest that headship rates are not changing as quickly as appears to be assumed by CLG projections**.

A4.10 **Any adjustments would mainly impact on Leicester** and would be justified on the basis of the information presented above. **We would also urge that the local authorities consider any headship rates outputs from the 2011 Census as soon as these become available to allow testing of the validity of CLG figures**.

Appendix 5 Synopsis of RSS Process

INTRODUCTION

A5.1 The purpose of this appendix is to bring together a description of the evidence, strategy and judgements which were used to formulate housing requirements in the East Midlands Regional Spatial Strategy (RSS), which was published by Government in March 2009. It considers the basis of both the housing requirement which was set out for the Leicester and Leicestershire Housing Market Area (HMA) together with the apportionments for individual districts. In both cases these evolved during the process of preparing the Plan between April 2005 and March 2009.

A5.2 The appendix is structured to describe the evolution of the housing numbers for Leicester and Leicestershire through the plan preparation process, and thus chronologically as follows:

- National Policy Context;
- RSS Preparation Timetable;
- The Previous Regional Spatial Strategy;
- Options for Change Consultation;
- Developing the Draft Plan;
- Representations & the Examination in Public;
- The Secretary of State's Proposed Changes;
- The Final Plan; and
- Concluding Points

NATIONAL POLICY CONTEXT

A5.3 The context to Regional Spatial Strategies is set out in national planning policy within Planning Policy Statement 3 (PPS3): Housing (CLG, Nov 2006)[7] and Planning Policy Statement 11 (PPS11): Regional Spatial Strategies (ODPM, Sep 2004). The policies within these documents provide the context for establishing housing policies within Regional Spatial Strategies.

[7] PPS3 was published while the draft RSS for the East Midlands was on consultation. The Coalition Government published a revised version in June 2010 to remove private gardens from the definition of previously-developed land and to delete the national minimum density of 30 dwellings per hectare. A further revision was published in June 2011 to amend the definition of affordable housing. No changes were made to the section on regional planning.

A5.4 PPS3 sets out that the level of housing provision should be determined "taking a strategic, evidence-based approach that takes into account relevant local, sub-regional, regional and national policies and strategies achieved through widespread collaboration of stakeholders" (Para 32). It provides specific advice regarding relevant considerations in planning for housing provision (see box below).

PPS3 Advice on Planning for Housing Provision – Paragraph 33

Local Authorities (LAs) and Regional Planning Bodies (RPBs) should take into account the following (Para 33):

- Evidence of current and future levels of need and demand for housing and affordability levels based upon:
  - Local and sub-regional evidence of need and demand, set out in Strategic Housing Market Assessments (SHMAs) and other relevant market information such as long term house prices.
  - Advice from the National Housing and Planning Advice Unit (NHPAU) on the impact of proposals for affordability in the region.
  - The Government's latest published household projections and the needs of the regional economy, having regard to economic growth forecasts.

- Local and sub-regional evidence of the availability of suitable land for housing using Strategic Housing Land Availability Assessments (SHLAAs) and drawing on other relevant information such as the National Land Use Database (NLUD) and the Register of Surplus Public Sector Land.

- The Government's overall ambitions for affordability across the housing market, including the need to improve affordability and increase housing supply.

- A Sustainability Appraisal of the environmental, social and economic implications, including costs, benefits and risks to development. This will include considering the most sustainable pattern of hosing, including in urban and rural areas.

- An assessment of the impact of development upon existing or planned infrastructure and of any new infrastructure required.

A5.5 In effect, national policy (as described in the box above) sets out that there are a range of factors which should come together to set housing targets. Evidence of housing need/demand is one of these – alongside land availability and the spatial strategy for an area – and that this requires testing in terms of infrastructure planning and sustainability appraisal.

A5.6 PPS3 outlines that Government policy is to ensure housing is developed in suitable locations which offer a range of community facilities and with good access to jobs, key services and infrastructure, and makes best use of land (particularly through development of previously-developed land (PDL) and existing infrastructure.

A5.7 PPS11 sets out that the RSS should provide a broad development strategy for the region for 15-20 years hence. An RSS should identify the scale and distribution of new housing related to the spatial vision and strategy for the region. It should address sub-regional issues, but the intention is that it would be locationally rather than site specific.

EVALUATING THE RSS PROCESS AGAINST NATIONAL POLICY

National policy, as described above, sets the framework for interrogation of the RSS process between 2005-9 within the East Midlands. In overview, our analysis indicates that:

1. The Government's revised 2004 household projections provide the basis of the policies on housing provision in the RSS for the Leicester & Leicestershire (L&L) Housing Market Area (HMA) as a whole.
2. That the starting point for distributing future housing provision within the HMA has been the spatial strategy and planning principles – aiming to maximise the use of Previously-Development Land (PDL) and prioritise the Leicester Principal Urban Area (PUA), particularly the significant urban capacity identified within Leicester City.
3. That issues related to infrastructure capacity and sustainability, combined with the spatial strategy focus on the PUA and Sub-Regional Centres (SRCs) have been the primary influences in identifying locations for additional greenfield development as Sustainable Urban Extensions (SUEs).

It is useful to highlight up front that the adopted East Midlands RSS did not take account of population and household projections which came available after the Panel Report, emerging national policy in the form of the Housing Green Paper (2007) and research by the National Housing and Planning Advice Unit (NHPAU) which argued for higher levels of housing growth to bring about long-term improvements in affordability. The NHPAU has since been wound up by the Coalition Government.

The RSS Process did however take account of the successful bid by the Three Cities and Three Counties for Growth Point status.

RSS PREPARATION TIMETABLE

A5.8 The process of preparing (or rather revising) the East Midlands Plan was guided by the stages set out in PPS11. The RSS timetable was as follows:

Figure A5.1: RSS Preparation Timetable

Stage		Timing
1	RSS Review Project Plan Issued	April 2005
2	Consultation on Initial Options (Options for Change)	Oct 2005 – Jan 2006
3	Draft RSS Published for Consultation	Sept 2006 – Dec 2006
4	RSS Public Examination	May 2007 – July 2007
5	Publication of the Panel Report	Nov 2007
6	Consultation on Government's Proposed Changes	July – Oct 2008
7	Final Plan Published	March 2009

A5.9 The Section 4(4) authorities (Leicester City Council and Leicestershire County Council) were formally involved in the RSS process in coordinating the development of the sub-regional strategy contained within the draft Plan. This included providing advice to the Regional Assembly on housing numbers and distribution. The City Council's work to establish the potential urban capacity of Leicester was the first stage of this process before assessing the distribution of housing to the districts.

A5.10 Individual local authorities were able to make formal representations to the Public Examination and to the Secretary of State's Proposed Changes.

A5.11 To inform this paper, GLH has reviewed a range of documents including various iterations of the Plan, Leicestershire County Council and Leicester City Council reports, the Panel Report, and district-level Committee Reports where available. The report focuses on understanding the basis of and views expressed regarding housing figures.

THE PREVIOUS REGIONAL SPATIAL STRATEGY

A5.12 The previous Regional Spatial Strategy for the East Midlands (RSS8) was published in March 2005. It is relevant in that the broad spatial approach and principles within the RSS remained substantially unchanged through the review process to 2009.

A5.13 RSS8 (2005) set out a broad development strategy for the region to 2021. Its spatial strategy was based on a sequential approach to development (prioritising PDL in urban areas) which remained unchanged from RPG8 published in Jan 2002.

A5.14 The spatial strategy sought to locate "significant levels of new development" within the Principal Urban Areas (PUAs) which included Leicester; with "appropriate development of a lesser scale" in defined Sub-Regional Centres which included Coalville, Hinckley and Loughborough within the Three Cities Sub-Area, Melton Mowbray (then) in the Eastern Sub-Area and Market Harborough (then) in the Southern Sub-Area.

A5.15 The Three Cities and Southern sub-areas were two of five sub-areas which made up the region. Sub-area boundaries were revised as part of the RSS Review which commenced in 2005[8].

A5.16 "Sub Area Priorities" policies provided further guidance for parts of Leicestershire. Within the Three Cities Sub-Area the emphasis was on the need for continuing regeneration in Leicester; and relating the scale of development elsewhere to the size of settlement. The document established the requirement to develop a Sub-Regional Spatial Strategy for the Three Cities Sub-Area (as subsequently taken forward in the Plan Review). In the Eastern Sub Area the 'consolidation and strengthening' of Melton Mowbray was supported.

[8] This is further considered in Section 5. For the purposes of the RSS Review a Leicester & Leicestershire Housing Market Area was defined which fell entirely within the Three Cities Sub-Region.

A5.17 For the purposes of comparison with later iterations, the 2005 Plan (i.e. RSS8) set out a requirement for provision of 3,150 dwellings per annum (as an annual average) for the plan period 2001-21 for the Leicestershire, Leicester and Rutland Structure Plan area. This formed part of a region-wide requirement for 15,925 dwellings per annum over the plan period. Housing provision figures were not however within the scope of this plan review (and were consistent with 2002 Regional Planning Guidance (RPG)). No explicit reference was made to other Sub-Regional Centres in Leicestershire.

A5.18 Housing provision figures were not provided to a district level within the 2005 (i.e. RSS8) Plan, but with a recognition that a review of the plan would commence shortly after its publication to achieve this in order to accord with the requirements of the Planning & Compulsory Purchase Act 2004.

A5.19 Against this context, housing provision at a local authority level in Leicester and Leicestershire was guided by the Leicestershire, Leicester & Rutland Structure Plan 1996-2016, which was adopted in March 2005. This set out dwelling requirements for individual local authorities, providing separate figures where applicable for the Central Leicester Policy Area which included the Leicester Urban Area and surrounding hinterland[9].

A5.20 The basis of the housing figures at the regional level was set out in Appendix 4 of RSS8 (2005). The starting point was the Government's 1996-based household projections for the East Midlands region (projected increase of 345,000 households, 1996-2021). These were adjusted downwards to take account of 'over-estimated in-migration to Leicestershire' (reducing the regional requirement by 13,000) and the potential housing contribution from a 0.5% reduction in the vacancy rate, offset against inclusion of an allowance to meet the needs of concealed / shared households, and to allow for transactional vacancies in new housing stock (at 2.0%). This was the basis of the regional requirement for 318,500 homes planned for over the 2001-21 plan period.

OPTIONS FOR CHANGE CONSULTATION

A5.21 The RSS Review commenced with the development of a Project Plan in Summer 2005, but the first substantive stage of the process was the consultation on the Options for Change Document, published by the Regional Assembly in October 2005.

[9] The definition of the Central Leicester Policy Area differs from and is wider than that of the Leicester Principal Urban Area (PUA)
[12] DTZ Pieda (Apr 2005) *Identifying the Sub-Regional Housing Markets of the East Midlands*

A5.22 The Options for Change Consultation proposed:

- Changes to the Sub Area Boundaries – including the whole of Harborough and Melton within the Three Cities Sub-Region (based on research undertaken at the regional level to define sub-regional housing markets)[12];
- Policies on Development Form – proposing that the then adopted Plan's policies of a sequential approach to development was maintained, prioritising Previously-Developed Land (PDL) in sustainable locations;
- Options for the Scale and Distribution of Housing – setting out a number of strategic and spatial options regarding the quantity and distribution of new housing, with associated district-level figures.

A5.23 Policies on development form and changes to sub-area boundaries where supported by the L&L local authorities in most cases, with the exception that Melton Borough Council objected to the proposed revisions to sub-area boundaries, seeing the Borough more closely aligned with the Eastern Sub-Area.

A5.24 Key broad principles underpinning the spatial strategy within the RSS were consulted on at this stage, the proposed focus being on:

- Strengthening the role of Leicester as the PUA through urban intensification and planned urban extensions;
- Strengthening the sub-regional roles of Coalville, Melton Mowbray, Loughborough, Hinckley and Market Harborough; and
- Meeting affordable housing needs in a way that promotes a more sustainable pattern of development.

A5.25 Options for housing provision were structured around a matrix made up of three (strategic) options related to the level of housing development proposed, and three (spatial) options relating to different approaches to housing distribution. The strategic options for Leicester and Leicestershire were as follows:

Figure A5.2: Options for Change – Annual Housing Requirement Options, 2001-26										
Household Growth per Annum, 2001-26	Below Trend Growth (1)			Trend-Based Growth (2)			Above Trend Growth (3)			Structure Plan (Dwellings)
	Trend-Based (A)	Urban Concentration & Regeneration (B)	Strong Urban Concentration (C)	Trend-Based (A)	Urban Concentration & Regeneration (B)	Strong Urban Concentration (C)	Trend-Based (A)	Urban Concentration & Regeneration (B)	Strong Urban Concentration (C)	
Leicester	380	950	1090	470	1,180	1,360	560	1,420	1,630	950
Blaby	260	230	250	330	290	310	400	350	370	233
Charnwood	370	470	490	460	590	610	550	700	740	470
Harborough	390	370	400	490	470	500	590	570	600	378
Hinckley & Bosworth	340	340	360	430	430	450	510	510	540	340
Melton	180	210	170	220	260	220	260	320	260	210
NW Leicestershire	430	370	310	540	460	390	650	550	470	368
Oadby & Wigston	180	90	90	230	110	110	280	130	130	85
Leicester & Leicestershire	2,530	3,030	3,160	3,170	3,790	3,950	3,800	4,550	4,740	3,034

Source: EMRA

A5.26 The consultation document said that these options were based on work undertaken by Anglia Polytechnic University using the 2003 Population Projections and the 2002 Interim Household Projections issued by the Office of the Deputy Prime Minister (ODPM). This work projected households between 2001-26 using Anglia Polytechnic University's Chelmer Model, with 1996-based household headship projections adjusted to align 2001 households with Census-based results. The ODPM 2002-based Household Projections were at regional level and based on ONS draft 2002-based population projections and 1996-based household projections. This did not update the 1996-based trends in household formation. The trend-based projection for each of the districts was Option 2A (highlighted).

A5.27 Options 1A and 3A, respectively, reflected a housing requirement 20% above and below the trend-based option (2A). The 'B' and 'C' options modelled the impacts of a distribution strategy at the regional level which focused on urban areas (and particularly the PUAs). Given the scale of the PUA in population and households relative to the HMA as a whole, these scenarios resulted in higher housing numbers for the L&L HMA.

A5.28 A formal response was submitted by the Section 4(4) authorities to the Regional Assembly in January 2006. This referred to a combination of Options, with Option 2B for Leicester and with one of either Options 1B, 2B or 3B for Leicestershire.

A5.29 The Options for Change Consultation was considered by each of the Districts (as well as the Section 4(4) authorities) between October 2005 and January 2006. It was considered against the policies within the adopted Leicestershire, Leicester and Rutland Structure Plan and existing evidence of urban capacity. The various Councils expressed different views regarding potential options. These are summarised below.

Figure A5.3: Council Views on Options for Change Figures

Local Authority	Preferred Option	Rationale
Leicestershire	B	Preferred approach urban concentration & regeneration consistent with RSS8; with support for either Option 1C or 2B for Leicester.
Leicester	2B	Considered an ambitious growth target but one with realistic prospect of delivery with Government funding support for infrastructure. Informed by urban capacity information. Promoted a phasing policy.
Blaby	2B	Considered sustainable, although this is below long-term delivery trends.
Charnwood	-	None but closest was 2B which was considered sustainable, subject to supporting physical and social infrastructure.
Harborough	2B or 2C	Potential options subject to further detailed work. 2B supported at County level with reservations at local level.
Hinckley & Bosworth	2B	Supported Option 2B.
Melton	2C	Argued should be included within the Eastern Sub-Area.
NW Leicestershire	2B or 2C	Subject to further detailed work.
Oadby & Wigston	1B	Similar to recent completions. Desire to minimise greenfield development.

Source: GLH Analysis of Council reports

A5.30 A consistent preferred option was not identified by the local authorities at this stage (but appears to have emerged subsequently as part of discussions regarding the Three Cities & Three Counties Growth Point bid).

A5.31 A number of caveats and reservations were attached to these views, with concerns expressed over the somewhat formulaic approach adopted, the need for detailed further work and consideration of/ dependencies on the availability of infrastructure funding. In a number of cases it was identified that the evidence base for the figures was unsatisfactory. Caveats were also attached to the forecasting, particularly in light of the then impending release of further Government projections for household growth (2003-based; released March 2006).

A5.32 It should be noted that through the Options for Change Consultation, preferences regarding potential housing numbers were expressed in advance of detailed development of the spatial strategy or assessment of potential suitable locations for Sustainable Urban Extensions (SUEs) and initial infrastructure planning.

A5.33 Subsequent to the Options for Change Consultation, the Three Cities and Three Counties Growth Point Bid was submitted to Government in March 2006. This was based on delivery of Option 2B for housing growth of 3,790 per annum across L&L – 25% above the Structure Plan level. Growth Points were a national initiative by the previous Government aiming to improve housing delivery. It included some additional funding and the potential to bid for resources to support infrastructure investment.

OPTIONS FOR CHANGE - SETTING THE FRAMEWORK FOR THE REVIEW

The Options for Change numbers were based on 2003-based Population Projections and assumptions on headship from the 2002-based Household Projections.

It was at this early stage of the RSS Review process that there was sign-up to the broad level of growth at the HMA level. While different initial views were expressed by Districts, collective sign-up to the Option 2B numbers (trend-based growth with urban concentration and regeneration) was achieved through the successful Growth Point Bid.

The spatial strategy took forward the approach in RPG8 and the Structure Plan, but with housing numbers 25% higher.

Oadby & Wigston BC stands out as supporting a lower number – 90 dwellings pa – based on their past completion rate. This position at the outset of the RSS Review informed the Borough's housing numbers in the final Plan in 2009.

DEVELOPING THE DRAFT PLAN

A5.34 In the period between the submission of advice to the Regional Assembly in response to the Options for Change Consultation in January 2006 and the publication of the draft Plan for consultation in September 2006 a considerable amount of work took place. This included development of the Three Cities Sub-Regional Strategy, and technical work to consider the capacity of the Leicester Principal Urban Area (PUA) and Sub-Regional Centres (SRCs) to accommodate development both within the existing built-up areas and within Sustainable Urban Extensions (SUEs).

A5.35 The Regional Assembly's Joint Housing, Transport & Planning Board agreed on 16th May 2006 the overall approach to selecting land for development (Policy 2 in the Draft Plan) together with housing numbers for each HMA (3790 dwellings per annum for L&L 2001-26). It should be recognised that the figure for the HMA reflected the CLG household projections, but also the impacts of constraints and policy factors elsewhere within the region, including environmental constraints in Lincolnshire and the MKSM Growth Programme in Northamptonshire.

A5.36 The Board also clarified the over-arching context for the Sub-Regional Strategy of strengthening the Leicester PUA through intensification and sustainable urban extensions, and strengthening the role of the sub-regional centres (Coalville, Melton Mowbray, Loughborough, Hinckley & Market Harborough). This formed the basis for subsequent work on the Sub-Regional Strategy and development of formal advice by the Section 4(4) authorities.

A5.37 The housing target in the RSS consultation draft policy 14 of 3,780 pa (and Appendix 2 for Leicester & Leicestershire) represented 99.5% of household growth projected in the ODPM's 2003-based Household Projections. It was consistent with the Growth Point Bid.

A5.38 Against this context, work on the Three Cities Sub-Regional Strategy focused on potential spatial/ distribution choices. Four potential spatial options were developed:

1. Leicester focus with emphasis on regeneration
2. Leicester focus; regeneration in Loughborough, Hinckley & Coalville
3. Smaller Leicester focus; and stronger focus on Loughborough, Melton Mowbray, Market Harborough, Hinckley & Coalville
4. Smaller Leicester focus and stronger focus on the towns above, complimented by a lesser focus on Ashby-de-la-Zouch & Lutterworth

A5.39 These potential options were presented by the Section 4 (4) authorities and discussed at a Seminar in June 2006 and subject to more detailed technical work including Sustainability Appraisal (SA). Our understanding is that options for general distribution of development were considered, however a detailed distribution of the HMA requirement by local authorities was not produced at this stage.

A5.40 Assessment against the agreed approach to selecting land for development (Policy 2) and the regional preferred spatial option (of focussing on PUAs and SRCs)[13], the list of options was refined to Nos. 2 and 3.

A5.41 Detailed technical work was then undertaken, principally to consider the balance of development in the PUA and SRCs.

[13] As agreed by the Joint Housing, Planning and Transport Board on 16th May 2006

A5.42 Taking account of completions between 2001 and 2005, and the potential urban capacity where this existed (including sites with and without planning consent), a requirement to identify locations for c.30,125 dwellings (with capacity for delivery between 2006 and 2026) was identified.

EVALUATING THE POTENTIAL FOR SUSTAINABLE URBAN EXTENSIONS

A5.43 The technical work undertaken to evaluate the potential for Sustainable Urban Extensions was led by Leicestershire County Council. It considered first the potential of the Leicester PUA to accommodate Sustainable Urban Extensions, followed by that of the Sub-Regional Centres. It assessed:

- physical and environmental constraints to development;
- existing infrastructure capacity;
- the feasibility of delivering additional infrastructure to support development; and
- the sustainability of potential locations, through Sustainability Appraisal.

A5.44 The exercise undertaken considers the 'broad locations' for potential urban extensions rather than specific sites. We have structured our commentary to consider first the PUA, and then the SRCs.

Potential for Extensions to the Leicester PUA

A5.45 A definition of the Leicester PUA was agreed at the Leicester & Leicestershire Forum Meeting on 15th June 2006. It was agreed that the definition would remain consistent to that in the Structure Plan[15]. An assessment of the potential for sustainable urban extensions to the PUA was undertaken based on dividing this area around Leicester into 7 zones.

A5.46 The conclusions of the initial analysis of the seven zones are set out in the Housing Justification Paper[16], but can be summarised as follows:

- Zone 1: North-West (in Charnwood) – major new housing development plus park & ride was being delivered north of Birstall which was considered to form a defensible limit to the PUA. An urban extension would not be feasible without "significantly breaching defensible limits to development."

[15] The PUA was defined as containing the built-up parts of the City of Leicester, Oadby, Wigston, South Wigston, Birstall, Thurmaston, Scraptoft, Thurnby & Bushby, Glen Parva, Braunstone, Leicester Forest East, Kirby Muxloe and Glenfield.
[16] Prepared by Leicestershire County Council (Sep 2006)
[19] See Building a Greener Future: Consultation. Communities and Local Government, 2006

- Zone 2: North East (in Charnwood & Harborough) – an opportunity was identified for northwards extension of the urban extension being delivered at Hamilton (with extension of the green wedge as well). This could be supported by a link road between the A46 and Victoria Road East extension, which could be provided at a relatively lower cost than new road links to serve extensions to the south/ east of the PUA.

- Zone 3: East (in Harborough) – while the A47 was described as comparatively lightly trafficked, the character of this area was considered very rural and it was considered remote from the national road network. A link northwards to the A46, or southwards to the M1, was considered to be extremely expensive and only justifiable with a very substantial amount of new development.

- Zone 4: South-East (in Oadby & Wigston, and Harborough) – issues of flooding and settlement coalescence were recognised, but once again the cost of a link to the A46 or the M1 was considered prohibitively expensive unless a very substantial amount of new development was brought forward.

- Zone 5: South (Blaby) – while issues with flooding, settlement coalescence and the capacity of public transport were identified, as well as concerns regarding the impact on the functions of green wedges in the area and the capacity of road links into Leicester City from the south; it was considered that there was a significant opportunity for a link road to be provided to the M1, to the south of the villages (subject to further testing) that could the first stage of an Eastern bypass for Leicester.

- Zone 6: South-West (Blaby) – no particular physical constraints to development were considered to exist in this area, except for the severance effect of the M1. While M1 widening and delivery of the M1/M69 link roads around Junction 21 and 21a might inhibit development in the period to 2015, it was considered that there was an opportunity to capitalise on this investment, supported by delivery of a comprehensive package of sustainable transport measures (including extension of Park and Ride and A47 bus priority measures) and local infrastructure provision, to support a sustainable urban extension.

- Zone 7: North West (Blaby, Charnwood, Hinckley & Bosworth) – given the extent of flood plain, green wedges and the Charnwood and National Forests, it was considered that there was not significant scope within this zone.

A5.47 This initial high-level analysis was informed by the expertise of the County Council's transport planners and discussions with the Highways Agency. It identified the greatest potential in Zones 2 (North East), 5 (South) and 6 (West). The potential extension to the south (Zone 5) was subsequently discounted. The highways/transport analysis was drawn together with initial investigations of water and sewage treatment supply capacity.

A5.48 This initial analysis informed proposals for sustainable urban extensions to the PUA in Charnwood (north east) for 4,850 dwellings and Blaby (south west) for 4,000 dwellings included within the Draft Plan.

A5.49 Our understanding is that the scale of urban extensions proposed was informed by research which indicated that sustainable urban extensions needed have between 4,000 – 5,000 dwellings to be able to support a secondary school[19].

Potential for Urban Extensions to the SRCs

A5.50 A definition of the Sub-Regional Centres was agreed at the Leicester & Leicestershire Forum Meeting on 15th June 2006. It was decided that Coalville would remain the only sub-regional centre in NW Leicestershire.

A5.51 Leicestershire County Council carried out a similar analysis of infrastructure capacity and requirements to that for the PUA for the defined Sub-Regional Centres. The conclusions of this initial analysis were as follows:

- Loughborough – considered to have potential for sustainable growth given its location and status as the second largest settlement, and the presence of substantial employment and the University within the town. However particular congestion issues were identified and a need for detailed transport modelling work identified.

- Harborough – not considered appropriate for further major growth based on concerns over capacity of existing facilities and infrastructure, and a high level of committed development including a large local plan allocation to the south of the town.

- Hinckley – considered an appropriate location for a Sustainable Urban Extension, subject to resolving a number of transport issues including capacity on the A5 and access from the East Shilton Bypass to the M69.

- Melton Mowbray – considered that a moderate urban extension of 1,250 dwellings would be appropriate to meet local needs, taking account of the likelihood that delivery of an extant Local Plan allocation of 700 dwellings would not take place, and potential benefits from the associated delivery of a partial or full bypass.

- Coalville – considered appropriate for a Sustainable Urban Extension to support its role as a sub-regional centre, subject to more detailed transport modelling.

A5.52 Again, this initial analysis by Leicestershire County Council (although with caveats) informed inclusion of proposals for urban extensions of 4,850 dwellings to Loughborough, Hinckley and Coalville; with more modest expansion at Melton Mowbray.

A5.53 This initial analysis regarding the scale and locations of potential SUEs informed the revised distribution of housing numbers put forward by the County Council for inclusion in the Draft Plan.

A5.54 The City and County Councils submitted their formal advice to the Regional Assembly on housing provision together with draft text for the Sub-Regional Strategy in early September 2006. The recommended housing figures for the HMA are set out in the figure below.

Figure A5.4: Recommended Policy for Housing Provision, Sept 2006

LA	Dwellings per Annum, 2001-26	
Leicester City	1,180	all within the Leicester PUA
Blaby	350	Of which 160 dwellings pa should be a planned sustainable urban extension to the Leicester PUA
Charnwood	760	Of which 195 dwellings pa should be a planned sustainable urban extension to the Leicester PUA Development in the remainder of the district will be focused primarily on Loughborough, including 195 dwellings as a planned sustainable urban extension
Harborough	345	Majority of which should be within or adjoining the Leicester PUA and focused on Market Harborough
Hinckley & Bosworth	460	Of which 195 dwellings pa should be a planned sustainable urban extension to Hinckley
Melton	160	Of which 50 dwellings pa should be a planned sustainable urban extension to Melton Mowbray
NW Leics	480	Of which 195 dwellings pa should be a planned sustainable urban extension to Coalville
Oadby & Wigston	55	The majority of which should be within or adjoining the Leicester PUA
Leicester & Leicestershire	**3,790**	**Of which 355 dwellings pa should be planned sustainable extensions to the Leicester PUA.**

Source: Leicestershire County Council & Leicester City Council

A5.55 The table below outlines the difference between the Option 2B figures in the Options for Change Consultation and those put forward and included within the Draft Plan. Proposed housing provision within the L&L HMA in the Draft Plan remained consistent with the Growth Point Bid (3790 pa) which was based on Option 2B from the Options for Change Consultation; but the proposed district-level distribution has been amended based principally on the initial work undertaken to examine the potential for SUEs to the PUA and SRCs.

Figure A5.5: Difference between Options for Change & Draft Plan Figures (dwellings per annum 2001-26)			
	Options for Change 2B	Draft Plan	Differential
Leicester	1,180	1,180	0
Blaby	290	340	60
Charnwood	590	760	170
Harborough	470	345	-125
Hinckley & Bosworth	430	460	30
Melton	260	160	-100
NW Leicestershire	460	480	20
Oadby & Wigston	110	55	-55
Leicester & Leicestershire	3,790	3,780	0

Source: Draft RSS; GL Hearn

A5.56 Our understanding is that the proposed housing distribution at a district level were on the basis of the following:

- Leicester – delivery of five key projects in the defined central Strategic Regeneration Area (with potential for 7,500 or more homes), major greenfield development at Ashton Green (3,500) and Hamilton (2,000) (at potentially higher densities than previously envisaged) and other Local Plan allocations supported by financial resources to deliver supporting infrastructure;
- Blaby – delivery of an urban extension to the PUA of 4,000 dwellings to the west of Leicester, as well as a need to provide for more local needs in the villages to the south of the City.
- Charnwood – delivery of an urban extension of 4,850 dwellings to the PUA and 4,850 dwellings to Loughborough, as well extant Local Plan allocations for 600 dwellings.
- Harborough – no major development either adjoining the PUA or Market Harborough given the rural nature of the District and a particularly high build rate over the last 10 years. Local Plan allocations included a site at Kibworth for over 700 dwellings.
- Hinckley & Bosworth – delivery of an urban extension of 4,850 dwellings to Hinckley.
- Melton – delivery of a modest urban extension of 1,250 dwellings to Melton Mowbray, but excluding the Melton Mowbray new village allocation (considered not to conform with the Structure Plan). It was considered that this would help to maintain a good jobs-homes balance.
- NW Leicestershire – delivery of an urban extension of 4,850 dwellings to Coalville, as well as a large Local Plan allocation at Hugglescote which remained to be implemented.
- Oadby & Wigston – based on not locating any major development within the Borough.

A5.57 The relationship between the proposed figures and information on urban capacity is indicated below. Of a total requirement for new provision to be identified, it was intended that c.24,650 (based on GLH calculations) would be delivered through the six proposed Sustainable Urban Extensions of the total additional capacity of 30,125 dwellings required. The figure for Blaby of 350 was revised to 340 for publication of the consultation draft.

Figure A5.6: Basis of Figures in the Draft Plan

	Completions	Supply	New Provision	Total	Annual	Structure Plan		2B Figures	
	2001-5	2001-26	2006-26						
Blaby	827	2,444	5,525	8,796	350	233	50%	290	21%
Charnwood	2,632	6,201	10,200	19,033	760	470	62%	590	29%
Harborough	1,458	5,140	2,000	8,598	345	378	-9%	470	-27%
H&B	2,231	3,766	5,450	11,447	460	340	35%	430	7%
Melton	570	2,125	1,250	3,945	160	210	-24%	260	-38%
NW Leics	1,509	5,156	5,400	12,065	480	368	30%	460	4%
O & W	352	723	300	1,375	55	85	-35%	110	-50%
Leicester	4,124	25,375	0	29,499	1,180	950	24%	1,180	0%
HMA	13,703	50,930	30,125	94,758	3,790	3,034	25%	3,790	0%

Source: Leicestershire County Council

A5.58 The revised sub-regional distribution also took into account the latest CLG Household Projections (2003-based) which were published after the Options for Change Consultation but prior to the advice provided by the Section 4(4) Authorities to EMRA in September 2006. These showed that the 2B figures for the districts of Blaby, Harborough, Oadby & Wigston and Melton were substantially below the 2003-based trend-based projections.

THE BASIS OF THE FIGURES IN THE DRAFT PLAN

Proposed housing provision within the L&L HMA didn't change between the Options for Change Consultation and the Draft Plan. It was the distribution to districts within the HMA that was revised, principally based on urban capacity and the potential for Sustainable Urban Extensions to the PUA and SRCs in line with the agreed spatial strategy.

The potential for SUEs (and associated evidence base for housing figures) was provisional at this stage, subject to further testing particularly around infrastructure issues. However it was the figures put forward which were consulted on.

REPRESENTATIONS & THE EXAMINATION IN PUBLIC

TRANSPORT TECHNICAL WORK

A5.59 Subsequent to the publication of the Draft Plan in September 2006, further technical work was undertaken by Leicestershire County Council on the highways and transportation implications of potential Sustainable Urban Extensions. An initial Technical Report was completed in December 2006. In response to the general references to Sustainable Urban Extensions (in the draft plan) Leicestershire County Council assessed the following option:-

- Leicester PUA
  - Charnwood (North) – 4,850 dwellings
  - Blaby (West) – 4,000 dwellings
- Loughborough – 4,850 dwellings
- Hinckley – 4,850 dwellings
- Coalville – 4,850 dwellings

A5.60 The work undertaken including modelling the transport impacts of potential development and considering potential mitigation measures and infrastructure requirements based on assumed broad development locations. It included high level costing of potential infrastructure requirements and the assessment of the ability of the proposed development to support this (in terms of developer contributions to infrastructure, calculated on a cost per acre basis). This was undertaken principally to assess the deliverability of the proposals.

A5.61 Initial work was undertaken by Leicestershire County Council using the Central Leicestershire Traffic Model for the PUA, the Loughborough Traffic Model and gravity models prepared for Coalville and Hinckley. Its conclusions (in summary) were that the extensions to the PUA to the north (Charnwood) and west (Blaby) could both be accommodated with modest improvements to the local road network and public transport.

A5.62 In Hinckley and Coalville, a higher level analysis was undertaken. In Hinckley this identified the potential for an urban extension towards the southern end of the Northern Perimeter Road with potential to deliver a Park & Ride site and to address problems associated on the A5. It concluded that the road network could probably be made to function effectively and therefore that “there appears to be some scope for an SUE”. Similar conclusions where drawn for Coalville, with the report emphasising the potential of development to support the regeneration of the Town Centre and the benefits of delivery of major employment development for the town.

A5.63 The situation at Loughborough was more complex. The County Council's work explored three different options for mitigation measures to support an SUE to the West of Loughborough. However it was concluded that an SUE of 4,850 dwellings to the west of Loughborough could not be accommodated, concluding that this would not support the cost of the transport schemes required to support the development. Further options were therefore considered, including SUEs to the south (3500 dwellings) and east (4850 dwellings); and for a larger urban extension to the east (8000 dwellings). This work by Leicestershire County Council concluded that a sustainable urban extension of 4,800 dwellings could not be delivered in any of the three locations assessed (south, east or west), as traffic impacts would be too great or the necessary mitigation measures unaffordable. However it concluded that a larger SUE of 8000 dwellings to the east of the town could fund a substantial package of transport improvements of benefit to the town as a whole, and should be capable of delivery.

A5.64 On the basis of the transport work undertaken by Leicestershire County Council, the associated Sustainability Appraisal of possible SUEs and the conclusions of the Leicester Principal Urban Area Housing Land Availability Assessment[21], the County Council proposed a revised distribution of housing provision. This is set out in the figure below and was driven primarily by the conclusions of the County's Transport Technical Assessment regarding the scale of development at Loughborough. This was agreed by Leicestershire County Council in December 2006.

Figure A5.7: County Council's Revised Advice regarding Housing Distribution (all figures dwellings per annum)

	Draft Plan	Revised Advice	Difference
Leicester	1,180	1,180	0
Blaby	350	310	-40
SUE to PUA	160	150	-10
Charnwood	760	860	100
SUE to PUA	195	175	-20
SUE to Loughborough	195	320	125
Harborough	345	335	-10
Hinckley & Bosworth	460	425	-35
SUE to Hinckley	195	175	-20
Melton	160	170	10
SUE to Melton Mowbray	50	60	10
NW Leicestershire	480	445	-35
SUE to Coalville	195	175	-20
Oadby & Wigston	55	55	0
Leicester & Leicestershire	3,790	3,780	-10
Urban Extensions	990	1,055	65

Source: Leicestershire County Council

[21] Roger Tym & Partners (2007) - New Growth Point funded study commissioned by Leicester City Council and Leicestershire County Council

[23] Rounded to nearest 10 dwellings

A5.65 The proposed revised distribution did not alter the HMA total, but proposed an increase in the housing requirement for Charnwood, and a reduction elsewhere including a marginal shift away from the PUA (by 35 dwellings pa).

A5.66 A further Technical Transport Study was completed by Leicestershire County Council in April 2007. This supported the conclusions of the initial work transport work.

A5.67 The revised distribution, and the evidence underpinning it, formed the basis of the County Council's representations at the Examination in Public.

A5.68 The County Council's transport modelling work assumed substantial new road capacity was essential before real improvements could be made to public transport, walking and cycling. The County Council's representations to the Examination in Public were not supported by Charnwood Borough Council. In 2008 Charnwood Borough Council commissioned MVA to review the modelling work in terms of transport infrastructure and consider a number of alternative locations for large sites around Loughborough/Shepsted and to the north of Leicester. This work using a congestion-based borough-wide model concluded that the congestion impacts of development would be lowest for a west of Shepsted option and an option south west and south of Loughborough. West Loughborough came next. All these options had a lower impact than east of Loughborough and were much less expensive to implement. MVA also concluded that a well-designed western relief road could be as beneficial as an eastern route in providing wider traffic benefits.

REPRESENTATIONS AT THE EXAMINATION IN PUBLIC

A5.69 Many of the local authorities made representations on the Draft Plan for consideration at the Examination in Public. The basis of the County Council's recommendations to alter the distribution of housing provision has been described above.

A5.70 Leicester City Council supported the Draft Plan's housing allocation for Leicester based on the existing strategy for urban regeneration in its adopted Local Plan (2006). The Council's assessment of urban capacity in Leicester was also independently verified by the Leicester PUA Housing Land Availability Assessment which concluded that there was sufficient land identified to meet the Regional Plan's target.

A5.71 Charnwood BC objected to the County Council's proposed revised distribution. It argued that the locations of an SUE to the east of Loughborough and to the north of Leicester did not take adequate consideration of environmental impact and expressed concerns regarding the deliverability of this scale of development within the period. It also highlighted the severance effect of the floodplain within the area proposed for development east of Loughborough. Charnwood Borough Council had a separate Transport Assessment and Sustainability Appraisal undertaken which challenged the County Council's findings. It argued for no more than 19,000 dwellings in Charnwood as set out in the Draft Plan.

A5.72 A number of the local authorities, including Blaby, Hinckley & Bosworth and North West Leicestershire, argued that the level of detail regarding locations for SUEs in Leicestershire within the Draft Plan was too specific and was inconsistent with the approach adopted in other parts of the Plan. Concerns were also expressed regarding delivery rates.

A5.73 Some local authorities made a case for changes to the housing numbers, seeking a return to the numbers they proposed as part of the Options for Change consultation. Blaby District Council argued for provision of 290 dwellings pa (their Option 2B figure) and against the 340 dwellings pa proposed in the Draft Plan, arguing that this reduction could be offset by increasing the requirement for Oadby & Wigston from the 55 dwellings pa in the Draft Plan to 90 dwellings PA as proposed by Oadby & Wigston BC as part of the Options for Change Consultation. Oadby & Wigston BC also made representations arguing for an increase in their housing target to 90 dwellings PA, providing evidence of past completions and urban capacity (including within town centres) to support this.

PANEL REPORT

A5.74 The Examination in Public was held between May and July 2007, with the Panel Report subsequently published in November 2007.

A5.75 In respect of housing levels and distribution, the key conclusion of the Panel was that housing provision at the regional level should take account of the latest official household projections: the 2004 projections published by CLG in March 2007, in order to accord with PPS3 (para 33).

A5.76 The Panel Report recommended that provision should be made for delivery of 4,000 homes pa across Leicester and Leicestershire between 2006 and 2026. This was 6% higher than Draft Plan (3,790 pa). It was calculated as follows:

CLG 2004 Household Projection (2001-26)	3,791 households pa
Apply Draft Plan Net Policy Impact (-0.5%)	3,772 households pa
Allowance for Vacant Dwellings (within new stock)	73 dwellings pa
Total Requirement (2001-26)	96,125 dwellings

Completions 2001-6	16,185 dwellings
Residual Requirement	79,940
Annualised Residual Requirement (2006-26)	4,000 dwellings pa[23]

A5.77 The Panel concluded that it was not appropriate to include an allowance for concealed households as the CLG projections include an allowance for the number of current concealed households which may form in the future. It also found that including an allowance for a reduction in vacancy within the current housing stock was not appropriate, as there could be no guarantee that policy initiatives to achieve this would be successful. It concluded in para 4.82 that *"there are relatively limited opportunities, mainly through local authority empty property strategies, to influence vacancy. Such a target [as set out in the Draft Plan] can be no more than aspirational."*

A5.78 The Panel Report that a phasing policy should be applied to housing targets in Policy 14.

A5.79 The Panel Report supported the spatial strategy in the Plan. It did not however set out figures for individual local authorities. It recommended (para 4.6) that relevant local planning authorities in each Housing Market Area should agree a revised distribution with the Regional Assembly. We understand that this work was not undertaken. In the Schedule of Proposed Changes (July 2008) it is suggested that this was not taken forward as "*to do so could be considered as giving local authorities a favoured status at this stage. Instead district housing provision figures based on the Panel's recommendations [were] included for general consultation"* within the Secretary of State's Proposed Changes.

A5.80 The Panel strongly supported the use of Housing Market Areas as the "appropriate units for the planning of housing provision at the regional level." However practical difficulties arose in confirming the scale of potential Sustainable Urban Extensions. As set out in para 4.39 of the Panel Report, *"the position we faced at the examination was that work on strategic housing land availability assessments for each of the three cities [including Leicester] became available only shortly before the opening or even during the examination itself and differences over their interpretation were not fully resolved. As a result, we do not have the confidence that the figures given in Three Cities SRS Policy 4 for the quantum of housing provision in sustainable urban extensions into the districts of Derby, Leicester and Nottingham is correct. The figures can be regarded as no more than provisional pending the completion of further work …"* The Panel therefore made clear that the figures should be considered only provisional, and should be reassessed through the local planning process.

A5.81 The Panel did however endorse the proposals within the Draft Plan for urban extensions to the south-west and north of the PUA, confirming that these were the most appropriate directions for future growth; whilst not being specific about the scale of these extensions.

A5.82 The Panel also expressed concerns regarding the specificity of the scale of urban extensions to the Sub-Regional Centres. The specificity provided in Leicestershire was found to be inconsistent with the approach adopted in other areas within the Draft Plan; the Panel expressing strong reservations regarding the value and necessity of including these figures. It recommended their deletion. This was taken forward in the Proposed Changes, which made clear that the majority of development was expected to take place within / adjoining the Leicester PUA and SRCs, including through urban extensions as necessary; but did not provide specific figures regarding the size of these extensions.

A5.83 Leicestershire County Council's revised proposals for housing distribution within the HMA were a key issue of discussion at the EiP. The Panel identified the significant increase for the sub-regional centre of Loughborough as a cause for concern, given the priority given to the Leicester PUA within the spatial strategy. It identified additional concerns regarding the introduction of a major change at a late stage of the process, without proper consultation, and suggested that 'undue weight' had been attached to transport in considering the sustainability of potential urban extensions. On this basis is concluded that the housing distribution should not be altered, save for adjusting the figures to reflect the 2004 household projections. This recommendation was taken forward in the Proposed Changes.

A5.84 The Panel made clear that an early review of the Plan would likely be required to take account of more recent population and household projections. It provided within Section 20, addressing *Future Developments of the Draft Regional Spatial Strategy,* some initial thinking regarding potential locations for additional growth within the region. In this Section, the Panel suggested that additional growth should be located primarily in and around the PUAs in accordance with the Spatial Strategy (most likely through larger/ additional urban extensions), followed by some development at the Sub-Regional Centres proposed as Growth Points. The latter included Loughborough, although the Panel Report notes that the scale of additional development envisaged would not necessarily be to the extent proposed by Leicestershire County Council. After this the priority would be the other SRCs. The County Council argued against Loughborough being given enhanced status.

A5.85 In making additional housing allocations to meet growth beyond the 2004-based household projections, the Panel made reference to the potential for a major expanded settlement within the Burton-Leicester corridor associated with the potential reinstatement of passenger services on the National Forest rail line. We understand that while this proposal has political support locally, a key issue relates to the cost of reinstatement and securing funding which impact on its deliverability.

KEY FINDINGS FROM THE EIP

The overall strategy to focus development within the Leicester PUA and Sub-Regional Centres was endorsed by the Panel.

Various representations were made on the Draft Plan. Oadby & Wigston BC sought to increase the Borough's housing numbers in line with those it proposed through the Options for Change Consultation (90 pa). Blaby BC sought a reduction in its numbers. A revised distribution was also put forward by the County focused on delivering a larger SUE to Loughborough to which Charnwood BC objected. .

The Panel recommended a moderate increase in the housing requirement for the HMA to accord with the CLG 2004-based Household Projections. It supported the spatial strategy and housing distribution within the Draft Plan, and suggested this should be a basis for allocating additional growth. Additional changes to the wording were recommended to provide greater flexibility to Local Development Frameworks to determine the scale of SUEs.

SECRETARY OF STATE'S PROPOSED CHANGES

A5.86 The Secretary of State's Proposed Changes to the Draft Plan were published for consultation in July 2008. They took account of the findings of the Panel Report.

A5.87 Between the publication of the Panel Report in November 2007 and the publication of the proposed changes in July 2008, further household projections had been issued – the revised 2004-based Household Projections (published 29th Feb 2008). In addition further research had been published showing requirements for high levels of housing development within the region by the Government's National Housing and Planning Advice Unit (NHPAU) and new national targets for housebuilding had been published in the Housing Green Paper (published 23rd July 2007). It was however decided that these could not be taken into account in this review of the RSS, but that an immediate partial review of the RSS would be required post-adoption to cover the period to 2031.

A5.88 The housing numbers within the Proposed Changes were thus based on the (initial) 2004-based CLG Household Projections at the HMA level, applying the net policy impact for the HMA within the Draft Plan to this and including an allowance for vacant dwellings within new stock.

A5.89 The Proposed Changes to the Draft Plan included revised housing numbers at a district level. These were based on:

- An increase to the housing requirement to Oadby & Wigston (from 55 to 90 dwellings pa) on the basis of representations made by the local authority;
- Distribution of the housing requirements between the remaining local authorities based on the existing distribution within the Plan (excluding Oadby and Wigston).

A5.90 This calculation is shown in Figure 8.1 below. Representations were submitted by a number of the districts that the increased figure for Oadby and Wigston should be treated as part of the HMA total rather than as separate and additional to this.

Figure A5.8: Approach to Revising Housing Numbers in the Proposed Changes

	Draft Plan		Proposed Changes	
	Annual Requirement 2001-26	% L&L Requirement exc. O&W	Annual Requirement 2001-26	% L&L Requirement excluding O&W
Leicester	1,180	32%	1,200	32%
Blaby	350	9%	355	9%
Charnwood	760	20%	770	20%
Harborough	345	9%	350	9%
Hinckley & Bosworth	460	12%	470	12%
Melton	160	4%	160	4%
NW Leicestershire	480	13%	490	13%
Oadby & Wigston	55		90	
Leicester & Leicestershire	3,790		3,880[24]	

Source: GL Hearn

A5.91 The Secretary of State accepted a recommendation of the Panel that housing provision should be expressed as annual averages over 5-year periods. Figures for 2001-6 were based on recorded completions. Figures for 2006-11 were based on LPA housing trajectories, as set out in Annual Monitoring Reports from December 2007 where available. Leicestershire County Council, Leicester City Council and a number of the districts expressed concerns regarding this approach (making reference to the Panel's preference for annual targets). Figures were identified as minima (to which a number of authorities objected).

[24] Does not sum due to rounding

Figure A5.9: Housing Requirements – Proposed Changes					
	Dwellings per Annum				Total
	2001-6	2006-11	2011-16	2016-26	2001-26
Leicester	850	1,520	1,370	1,130	30,000
Blaby	210	260	340	460	8,650
Charnwood	670	810	800	790	19,300
Harborough	340	440	380	300	8,800
Hinckley & Bosworth	540	330	410	530	11,700
Melton	150	240	190	120	4,100
NW Leicestershire	380	370	470	610	12,200
Oadby & Wigston	90	90	90	90	2,250
Leicester & Leicestershire HMA	3,230	4,060	4,050	4,030	97,000

Source: GOEM (2008)

A5.92 As described, Policy SRS Three Cities 3 was amended within the Proposed Changes so as not to provide specific figures for sustainable urban extensions, but to describe the volume of which was expected to occur 'within or adjoining' the Leicester PUA and identify the Sub-Regional Centres as the focus for development in specific districts (with development 'located mainly' at them including through sustainable urban extensions as necessary). Some redistribution was however to be permitted, within the framework provided by the minima provision set out for the HMA and the proportion of this within/ adjoining the PUA. Leicestershire County Council accepted the need for a degree of flexibility, but argued that urban extensions needed to be of sufficient scale to support comprehensive masterplanning and infrastructure provision. A number of the districts supported the revised approach.

A5.93 Various representations were made by the local authorities to the Proposed Changes. Leicester City Council supported the modest increase from 1180 to 1200 dwellings pa but objected to the inflexibility of the proposed 5-year phasing periods. The County (and a number of the Districts) argued that the numbers for the HMA (97,000 dwellings) should be consistent within the Panel's recommendations (96,125 dwellings) and while supporting the proposed increase to Oadby & Wigston argued that the figures for other authorities should be adjusted to take account of the potential double counting, with a reduction of 875 dwellings across the HMA.

A5.94 Leicestershire County Council suggested that the potential for the Burton-Leicester Corridor should be highlighted as a key matter to be addressed in the Plan Review, and cautioned that any decisions by the Secretary of State regarding the eco-town proposal should not pre-empt the RSS Review.

A5.95 Blaby BC accepted the numbers but expressed delivery concerns and argued for a change to the PUA/non-PUA split within the District (arguing for at least 6,000 dwellings within/adjoining the PUA). Neither Leicester City, Melton nor NW Leicestershire objected to the increase in numbers.

IMPLICATIONS OF THE PROPOSED CHANGES

Housing numbers in the Proposed Changes (as in the Final Plan) remained based on the CLG 2004-based Household Projections although more recent projections had been produced by ONS/CLG and the direction of national policy would have supported higher numbers.

Additional growth was distributed based on a *pro rata* increase to existing numbers, with the exception of Oadby & Wigston which was treated separately. A number of authorities objected to the treatment of Oadby & Wigston, arguing that the additional housing proposed should be treated as part of, rather than separate from, the HMA total.

A separate phasing policy was set out at this stage, to which the majority of respondents to the consultation objected. The specificity regarding the scale and locations of SUEs was also reduced at this point, addressing objections raised by a number of the districts.

FINAL PLAN

A5.96 The Final Plan was published in March 2009. This confirmed the spatial strategy of concentrating development primarily in or adjoining the PUAs, with appropriate development of a lesser scale in the Sub-Regional Centres (Policy 3). It set out the policy approach within the Three Cities sub-area to deliver a balance of jobs and homes within and adjoining urban areas to reduce the need to travel (Policy 12), with the specific focus in the Leicester and Leicestershire HMA of strengthening the role of the Leicester PUA through urban intensification and sustainable urban extensions, followed by that of the Sub-Regional Centres. The broad spatial strategy thus remained consistent to the 2005 RSS and to the Structure Plan.

A5.97 Housing figures were set out in Policy 13a with further detail provided in Policy Three Cities SRS 3. The figures in the Final Plan are shown below. They broadly accord with the figures in the Proposed Changes, but were expressed as total requirements and annual averages over the 2006-26 period. This took account of representations that the five year figures were “too restrictive, not adequately evidenced or not realistic in the current economic climate” (reflecting the downturn in the housing market by the time of publication of the final Plan).

A5.98 The adjustments to the figures (when expressed as annual averages) reflect the change in the time period used from 2001-26 in the Draft Plan to 2006-26 in the final plan (a rebasing to 2006). In making this adjustment, the final figures for 2006-26 take account of completions (and hence any over/undersupply) in the initial 2001-6 period.

A5.99 Some moderate adjustments were made to the figures to take account of representations received that there had been some double counting related to the increase made to Oadby and Wigston in the Proposed Changes, and that this should not generate an increase in the total recommended for the HMA. This was accepted and housing provision for other districts proportionately reduced (with the impact primarily being in Leicester City and Charnwood).

Figure A5.10: Tracking the Evolution of Housing Figures (Annual Averages)

	Draft Plan	Proposed Changes	Proposed Changes	Final Plan
	2001-26	2001-26	2006-26	2006-26
Leicester City	1,180	1,200	1,290	1,280
Blaby	340	355	380	380
Charnwood	760	770	800	790
Harborough	345	350	355	350
Hinckley & Bosworth	460	470	450	450
Melton	160	160	170	170
NW Leicestershire	480	490	515	510
Oadby & Wigston	55	90	90	90
HMA Total	3,780	3,880	4,040	4,020

A5.100 The final Plan clarified the treatment of figures as minima, as indicated in the Proposed Changes. In the introduction to Policy 13a, it was set out that *"the total housing provision figures…are the figures that local authorities should plan for over the plan period. Local authorities can test higher numbers through their development plans provided they are consistent with the principles of sustainable development set out in PPS1 and tested through sustainability appraisal."*

A5.101 Policy SRS3 provided the final wording regarding the locations and form of development within the HMA. This is set out below for reference purposes. The final wording aimed, as described above, to give flexibility to and not prejudice the role of Local Development Frameworks (LDFs) in terms of the scale of urban extensions to Sub-Regional Centres and the PUA taking account of the plan's policies regarding the prioritisation of PDL and national policy in PPS11. PUA proportions were set as minima.

Final RSS (2009), Policy Three Cities SRS 3

Housing Provision

Within the context of Policy 13a, provision for new housing will be made at the following levels over 2006-26:

Leicester and Leicester HMA Total: 4,020 dpa, of which at least 1,990 dpa should be within or adjoining the Leicester PUA

Leicester City: 1,280 dpa, all within Leicester PUA

Blaby: 380 dpa, of which at least 250 dpa should be within or adjoining the Leicester PUA, including sustainable urban extensions as necessary.

Charnwood: 790 dpa, of which at least 330 dpa should be within or adjoining the Leicester PUA, including sustainable urban extensions as necessary. Development in the remainder of the District will be located mainly at Loughborough, including sustainable urban extensions as necessary.

Harborough: 350 dpa, of which at least 40 dpa should be within or adjoining Leicester PUA, including sustainable urban extensions as necessary. Development in the remainder of the District will be located mainly at Market Harborough, including sustainable urban extensions as necessary.

Hinckley & Bosworth: 450 dpa located mainly at Hinckley, including sustainable urban extensions as necessary.
Melton: 170 dpa located mainly at Melton Mowbray, including sustainable urban extensions as necessary.

North West Leicestershire: 510 dpa located mainly at Coalville, including sustainable urban extensions as necessary.

Oadby and Wigston: 90 dpa within or adjoining the Leicester PUA

Source: GOEM (March 2009) East Midlands Regional Plan

A5.102 The final plan was published against a context on the one hand of further research (primarily from the NHPAU) and more recent demographic projections showing higher levels of housing requirements; and on the other, the downturn in the housing market. In the Schedule of Further Changes, the Government argued that the projections represented underlying housing need (and the ambitions of the Green Paper remained valid) and that the impact of the market downturn would be primarily to reduce housing delivery. Later projections (2004/ 2006-Revised) were again left for the review of the Plan.

WHAT CHANGED IN THE FINAL PLAN

The numbers within the final Plan remained based on the CLG 2004-based Household Projections, with the alterations to annual targets reflecting the rebasing of the numbers to a 2006 base (and thus reflecting any under/over-supply between 2001-6) and a revision to the distribution within the HMA on the basis of treating the additional provision for Oadby & Wigston within (rather than separate to) the HMA total.

A number of broader amendments were made to aid clarity, particularly in expressing housing numbers as a total over the 2006-26 plan period and as annual averages, taking account of representations.

The Plan established the intention of an immediate review to take account of more recent Government projections and policy, including the Housing Green Paper and NHPAU supply ranges.

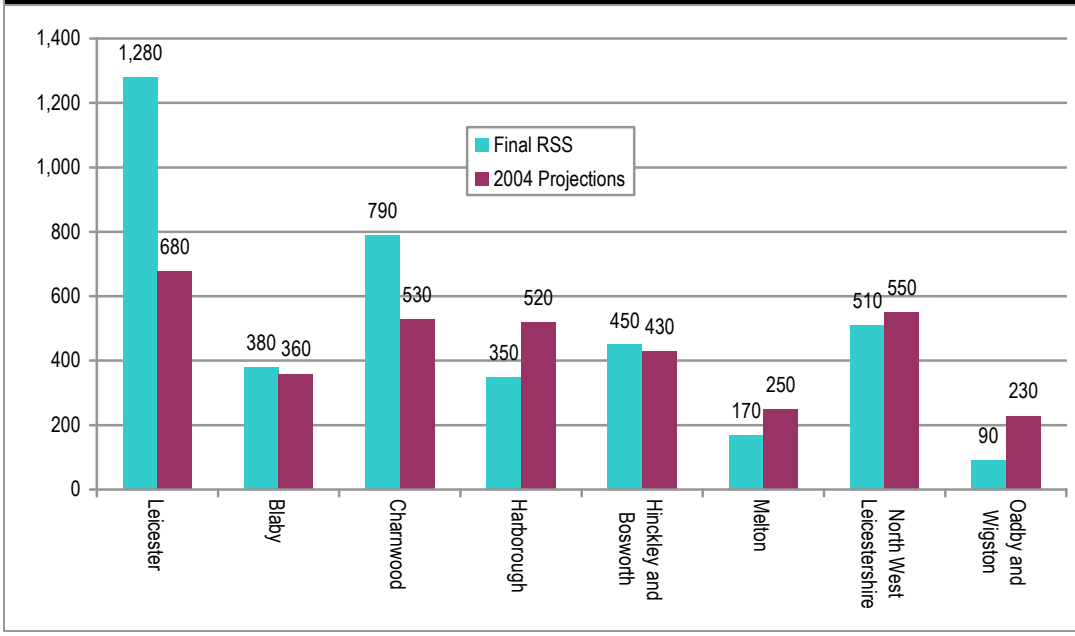
CONCLUDING POINTS

A5.103 Our analysis of the RSS process highlights that housing numbers in the Draft Plan in 2006 (3780 pa 2001-26) for the HMA as a whole were based on the Options for Change "2B" figures and the Growth Point bid (3790 pa). This was based upon an estimate of household growth at the regional level constructed by applying headship rates in the ODPM 2002 Household Projections to the ONS 2003 Sub-National Population Projections, combined with the preferred 'Urban Concentration and Regeneration' spatial option which influenced the distribution of housing to districts and HMAs. These numbers were subsequently updated to take account of take account of the CLG 2004-based, assuming a 'net policy impact' consistent with the Draft Plan (resulting in a -0.5% reduction in assumed household growth), together the inclusion of an allowance for vacancy within new stock (2%). Within the final plan they were re-based to 2006, taking account of completions between 2001 and 2006.

A5.104 The distribution within the HMA evolved through the various stages of the RSS Review but fundamentally reflected evidence of urban capacity, coupled with the spatial strategy of "urban concentration and regeneration." Changes from the initial numbers set out in Option 2B in the Options for Change consultation in 2005 to the Draft Plan in 2006 primarily reflected the initial work undertaken to consider the feasibility of urban extensions to the Leicester PUA and SRCs. This work considered the potential for urban extensions of c. 4,000 dwellings (as the size required to support key community infrastructure, including a secondary school). While further work undertaken by the County Council proposed a revised distribution, based principally on the need for a larger scale urban extension at Loughborough of 8,000 dwellings to support delivery of transport improvements (and specifically a relief road). This proposal was however contested by Charnwood BC and was ultimately rejected by the Panel at the Examination.

A5.105 The chart below outlines how the final housing requirements (numbers of dwellings) relate on a local authority basis to projected household growth. Figures are expressed as annual averages for the 2006-26 plan period. The chart indicates the effect of the spatial strategy in promoting development in Leicester. In Charnwood the housing requirement is also above projected household growth, influenced by planned provision for urban extensions to the PUA and Loughborough. In a number of the other districts, the housing requirement is below projected household growth influenced by urban capacity and the potential for Sustainable Urban Extensions in line with the spatial strategy of the Plan.

Figure A5.11: Comparison of RSS Housing Targets (Annualised) and CLG 2004-based Household Projections

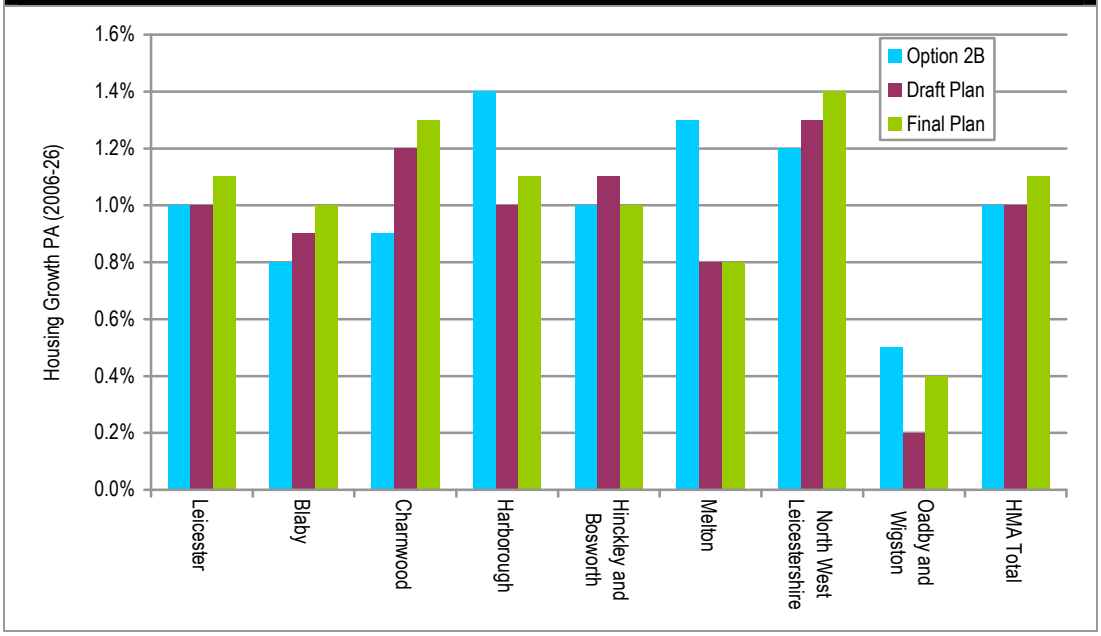


Source: CLG 2004-based Household Projections; East Midlands Regional Plan

A5.106 The distribution within the final Plan was thus based on pro-rata updating of that in the Draft Plan to accord with the 2004-based Household Projections and taking account of completions; with the exception of Oadby and Wigston where the Secretary of State made provision for additional growth in line with the representations made by the Borough Council, which were informed by evidence of urban potential and past completions.

A5.107 The figure below seeks to quantify the impact of the changes to the housing figures as the RSS Review progressed, expressed as a percentage of households in 2006. It shows that while the housing requirement at the HMA level increased from the Draft Plan to the Final Plan, this increase was relatively moderate. The more substantial changes were to the District figures.

Figure A5.12: Comparison of Annual Housing Requirements



A5.108 The major changes to the distribution were primarily between the Options for Change 2B figures and the Draft Plan, reflecting the work undertaken on potential urban extensions. This increased the figures for Blaby and Charnwood, with a substantial reduction in Melton and Harborough. The figures for most districts increased moderately between the Draft and Final Plans, with the exception of Oadby and Wigston for the reasons discussed.

Appendix 6 Detailed Projection Modelling and Assumptions

INTRODUCTION

A6.1 In the process of building up a base model for analysis and interrogation we have drawn on a number of different sources of information and used these to provide a best-estimate of past trends and how these might change into the future. As well as using available information we have had to make additional assumptions for some pieces of information – particularly where these relate to looking at patterns within five-year periods and for five year age groups.

A6.2 Our model has been developed to look at data at key five year time intervals (2006, 2011, 2016 etc.) and for five year age groups (0-4, 5-9, 10-14 etc.) as we believe that this gives a sufficient level of precision for the purposes of this project and it also allows for the model to be more easily updated in the future as new information becomes available (e.g. from the 2011 Census). The key sources of data considered as part of our modelling include:

- Detailed ONS components of changes assumptions (2008-based projections)
- CLG household projections (particularly relating to headship rates)
- NOMIS data (from annual population survey) about economic activity
- ONS past trend data on fertility, mortality and migration

A6.3 Below we have provided a full set of data tables for each local authority for our base population and household projections – for each of these we have set out the rationale behind the data, comments on assumptions made and an indication of the likely impact on findings of the assumptions made.

BASE POPULATION

A6.4 The base populations have been taken from figures derived in the 2008-based CLG household projections for 2006 (which are in turn derived from ONS data). Because we are projecting forward it is arguable that the base population is not a major determinant of future requirements (these being mainly driven by demographic, and in particular migration assumptions). We do however have concerns about the age profile for Oadby & Wigston, in particular the small number of males aged 25-29 and believe that if this is indeed an error in ONS/CLG estimates that it may have some knock-on effect on our housing requirement projections (particularly where these are linked to economic (employment) growth).

A6.5 The tables below show the full baseline populations for each local authority (with figures rounded to the nearest 10).

Figure A6.1: Base population (2006)						
Age group	Blaby			Charnwood		
	Males	Females	Total	Males	Females	Total
0-4	2,630	2,500	5,130	4,220	3,900	8,110
5-9	2,700	2,670	5,370	4,280	4,000	8,280
10-14	3,050	2,860	5,910	4,830	4,700	9,520
15-19	3,020	2,710	5,730	6,940	5,810	12,750
20-24	2,680	1,970	4,660	9,480	7,460	16,930
25-29	2,470	2,300	4,770	4,230	4,390	8,620
30-34	2,880	3,110	5,980	4,300	4,700	9,000
35-39	3,660	3,770	7,430	5,430	5,870	11,300
40-44	3,770	3,730	7,500	5,510	5,810	11,320
45-49	3,490	3,310	6,800	5,300	5,270	10,570
50-54	2,890	2,940	5,820	4,870	4,910	9,780
55-59	3,210	3,390	6,590	5,310	5,280	10,580
60-64	2,660	2,790	5,450	4,250	4,370	8,620
65-69	2,150	2,320	4,460	3,320	3,370	6,690
70-74	1,840	2,010	3,850	2,840	3,130	5,970
75-79	1,430	1,650	3,080	2,220	2,840	5,060
80-84	920	1,320	2,250	1,430	2,060	3,490
85+	600	1,140	1,750	910	2,060	2,970
TOTAL	46,050	46,470	92,530	79,660	79,920	159,580

Figure A6.2: Base population (2006)						
Age group	Harborough			Hinckley & Bosworth		
	Males	Females	Total	Males	Females	Total
0-4	2,410	2,220	4,620	2,850	2,660	5,510
5-9	2,720	2,440	5,160	2,920	2,860	5,780
10-14	2,760	2,570	5,320	3,090	2,940	6,030
15-19	2,580	2,360	4,940	3,160	3,100	6,260
20-24	1,500	1,340	2,830	2,530	2,430	4,960
25-29	1,670	1,660	3,330	2,720	2,750	5,470
30-34	2,160	2,420	4,570	2,980	3,260	6,240
35-39	3,180	3,390	6,570	3,930	4,030	7,970
40-44	3,580	3,540	7,130	4,190	4,050	8,230
45-49	3,160	3,030	6,190	3,680	3,770	7,450
50-54	2,820	2,870	5,690	3,610	3,630	7,240
55-59	3,120	3,020	6,130	4,150	4,120	8,270
60-64	2,610	2,540	5,150	3,180	3,310	6,490
65-69	1,890	1,960	3,860	2,490	2,510	5,000
70-74	1,530	1,760	3,290	2,000	2,170	4,170
75-79	1,220	1,440	2,670	1,590	1,960	3,550
80-84	810	1,190	2,000	1,000	1,590	2,600
85+	580	1,070	1,660	650	1,370	2,020
TOTAL	40,290	40,810	81,100	50,700	52,520	103,220

Figure A6.3: Base population (2006)						
Age group	Leicester			Melton		
	Males	Females	Total	Males	Females	Total
0-4	10,960	10,170	21,130	1,280	1,270	2,550
5-9	8,950	8,450	17,390	1,490	1,380	2,870
10-14	9,120	8,830	17,950	1,630	1,430	3,050
15-19	11,240	11,370	22,610	1,450	1,470	2,920
20-24	15,640	18,360	34,000	1,080	1,090	2,170
25-29	12,390	12,250	24,650	1,160	1,000	2,160
30-34	11,000	10,840	21,840	1,250	1,420	2,670
35-39	11,300	10,780	22,080	1,780	1,970	3,750
40-44	9,960	9,620	19,580	2,110	2,010	4,120
45-49	9,180	9,090	18,270	1,800	1,880	3,680
50-54	8,100	7,960	16,060	1,770	1,640	3,410
55-59	7,330	6,990	14,310	1,860	1,890	3,750
60-64	5,280	5,490	10,770	1,500	1,560	3,060
65-69	4,600	5,220	9,820	1,250	1,090	2,350
70-74	3,940	4,580	8,520	880	1,090	1,970
75-79	3,120	4,210	7,330	710	930	1,640
80-84	2,240	3,430	5,670	530	810	1,340
85+	1,550	3,250	4,790	300	750	1,050
TOTAL	145,880	150,870	296,750	23,820	24,670	48,490

Figure A6.4: Base population (2006)						
Age group	North West Leicestershire			Oadby & Wigston		
	Males	Females	Total	Males	Females	Total
0-4	2,700	2,550	5,250	1,380	1,310	2,690
5-9	2,790	2,590	5,380	1,640	1,550	3,190
10-14	2,850	2,580	5,430	1,960	1,850	3,810
15-19	2,770	2,530	5,300	2,600	2,560	5,160
20-24	2,070	1,970	4,040	2,980	2,250	5,230
25-29	2,300	2,340	4,640	780	1,300	2,080
30-34	2,810	2,920	5,730	1,360	1,520	2,880
35-39	3,580	3,660	7,240	1,840	2,040	3,870
40-44	3,750	3,620	7,370	2,090	2,350	4,440
45-49	3,220	3,150	6,360	2,110	1,990	4,100
50-54	2,910	2,920	5,830	1,730	1,770	3,500
55-59	3,280	3,310	6,590	1,800	1,870	3,660
60-64	2,830	2,810	5,640	1,460	1,580	3,040
65-69	2,060	2,090	4,140	1,340	1,500	2,840
70-74	1,640	1,790	3,430	1,150	1,480	2,630
75-79	1,320	1,590	2,910	1,010	1,240	2,240
80-84	820	1,370	2,190	640	910	1,550
85+	580	1,220	1,800	390	800	1,190
TOTAL	44,250	45,010	89,260	28,240	29,850	58,090

FERTILITY (BIRTH) RATES

A6.6 A key component of the population projection model is to estimate the number of births likely to occur to residents in each local authority area. To project the number of births we have projected age specific fertility rates. This is the number of births to women in particular age groups (taken in five year bands from 15 to 44). The key overall measure is the Total Fertility Rate (TFR) which is based the expected average number of live births per woman throughout their childbearing lifespan.

A6.7 Below we have examined live birth and the total fertility rate (TFR) in local authorities in Leicester and Leicestershire (and other areas for comparative purposes). The data shows (for 2009) that there is some variation in TFRs for different local authority areas with Harborough and Leicester showing the highest (at 2.00) and Oadby & Wigston the lowest (1.62). The figures compare with a regional average of 1.92 and a national figure of 1.95.

Figure A6.5: Live Births by Residence of Mother and Total Fertility Rate (2009)

Area	Live births	TFR
Blaby	1,009	1.88
Charnwood	1,784	1.69
Harborough	837	2.00
Hinckley & Bosworth	1,132	1.90
Leicester	5,201	2.00
Melton	489	1.95
North West Leicestershire	1,016	1.99
Oadby & Wigston	540	1.62
East Midlands	57,346	1.92
England	671,058	1.95

Source: Office for National Statistics

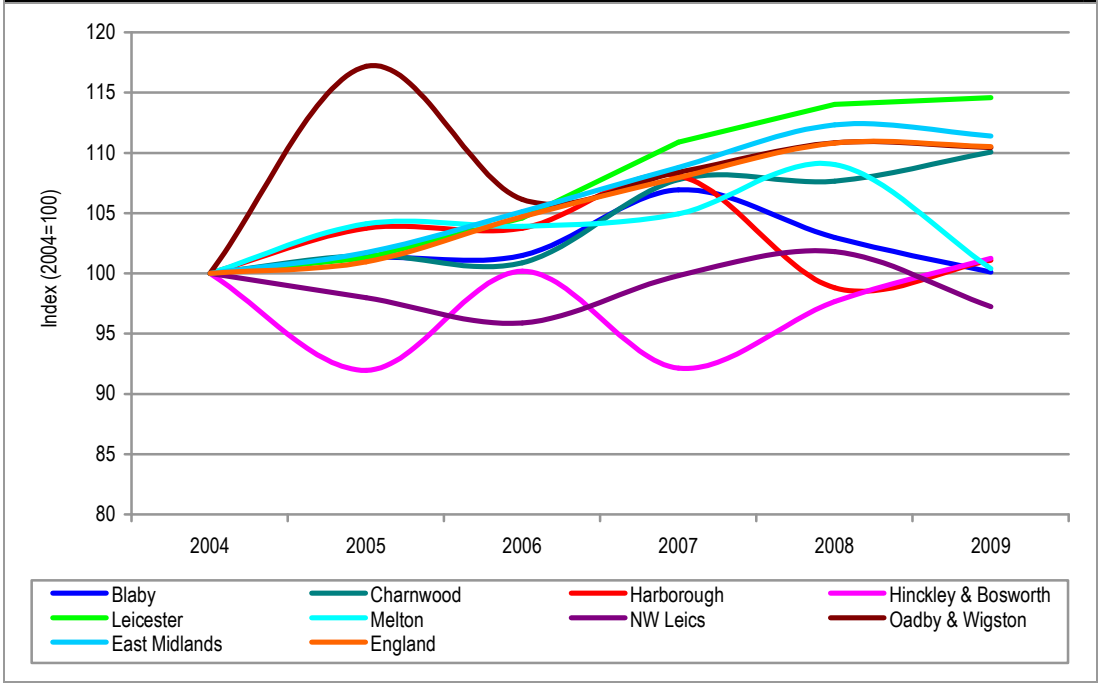
A6.8 Local level figures can be quite variable year on year and we have therefore looked at the period from 2004. The table and figure below shows the number of live births in each of the eight local authorities, the East Midlands and England. In the figure these have been based to 100 for 2004.

A6.9 The data shows that the number of births in England has steadily increased over this period (with roughly the same pattern for the East Midlands). Since 2008, the number of births nationally and regionally has levelled off (or dropped slightly). The figures for each of the eight authorities are more variable, although tend to follow the regional and national trend overall.

Figure A6.6: Live Births, 2004 to 2009						
Area	2004	2005	2006	2007	2008	2009
Blaby	1,008	1,021	1,023	1,078	1,038	1,009
Charnwood	1,621	1,645	1,635	1,747	1,745	1,784
Harborough	828	859	859	895	818	837
Hinckley & Bosworth	1,118	1,028	1,120	1,030	1,092	1,132
Leicester	4,539	4,597	4,747	5,033	5,176	5,201
Melton	487	507	506	511	531	489
North West Leicestershire	1,045	1,024	1,002	1,043	1,064	1,016
Oadby & Wigston	489	573	519	530	542	540
East Midlands	48,246	49,080	50,717	52,482	54,192	53,746
England	607,185	613,028	635,748	655,357	672,809	671,058

Source: Office for National Statistics

Figure A6.7: Number of Live Births 2004 to 2009 (Indexed 2004=100)



Source: Office for National Statistics

A6.10 Given the evident trends, as described above, it is clear that assumptions about future fertility rates will be difficult to accurately predict. We have therefore drawn on information from ONS about future fertility rates. The TFR figures used for modelling have been based on understanding past trends and also how fertility is projected to change in the future. ONS projections suggest that TFR is expected to have peaked in 2008 and then decline by around 5% before levelling off after about 2011. We have therefore used this core assumption and entered TFR estimates into a standard age-specific fertility distribution (from ONS). Some additional assumptions were made (particularly in Oadby & Wigston) to reflect lower fertility amongst the student population.

A6.11 The tables below show age specific fertility rates as applied by five year age bands and five year time periods (up to 2031) for each local authority. When modelling this data account has also been taken of wider age groups (e.g. the number of females aged 10-14 who will join the childbearing years during the five year projection period and those aged 40-44 who will leave) although this has a negligible impact on the outputs.

Figure A6.8: Age-specific fertility rate assumptions – Blaby					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	19.3	18.8	18.8	18.8	18.8
20-24	69.9	66.0	66.0	66.0	66.0
25-29	122.9	118.6	118.6	118.6	118.6
30-34	119.2	114.3	114.3	114.3	114.3
35-39	55.6	51.6	51.6	51.6	51.6
Over 40	10.0	9.7	9.7	9.7	9.7
TFR	1.98	1.89	1.89	1.89	1.89

Figure A6.9: Age-specific fertility rate assumptions – Charnwood					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	13.0	12.5	12.5	12.5	12.5
20-24	45.1	45.0	45.0	45.0	45.0
25-29	107.2	97.2	97.2	97.2	97.2
30-34	117.6	113.1	113.1	113.1	113.1
35-39	53.4	50.3	50.3	50.3	50.3
Over 40	11.2	11.1	11.1	11.1	11.1
TFR	1.74	1.65	1.65	1.65	1.65

Figure A6.10: Age-specific fertility rate assumptions – Harborough					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	16.0	15.4	15.4	15.4	15.4
20-24	65.9	62.8	62.8	62.8	62.8
25-29	113.4	108.9	108.9	108.9	108.9
30-34	145.7	138.2	138.2	138.2	138.2
35-39	66.8	63.1	63.1	63.1	63.1
Over 40	12.1	11.5	11.5	11.5	11.5
TFR	2.10	1.99	1.99	1.99	1.99

Figure A6.11: Age-specific fertility rate assumptions – Hinckley & Bosworth					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	22.4	22.2	22.2	22.2	22.2
20-24	71.8	70.2	70.2	70.2	70.2
25-29	112.7	105.4	105.4	105.4	105.4
30-34	111.0	102.3	102.3	102.3	102.3
35-39	48.3	45.8	45.8	45.8	45.8
Over 40	8.3	8.0	8.0	8.0	8.0
TFR	1.87	1.77	1.77	1.77	1.77

Figure A6.12: Age-specific fertility rate assumptions – Leicester					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	28.7	27.7	27.7	27.7	27.7
20-24	70.5	68.9	68.9	68.9	68.9
25-29	125.3	116.4	116.4	116.4	116.4
30-34	109.2	103.4	103.4	103.4	103.4
35-39	53.0	50.1	50.1	50.1	50.1
Over 40	13.1	12.8	12.8	12.8	12.8
TFR	2.00	1.89	1.89	1.89	1.89

Figure A6.13: Age-specific fertility rate assumptions – Melton					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	18.8	18.1	18.1	18.1	18.1
20-24	68.3	69.7	69.7	69.7	69.7
25-29	130.5	124.0	124.0	124.0	124.0
30-34	120.1	115.1	115.1	115.1	115.1
35-39	57.5	53.4	53.4	53.4	53.4
Over 40	11.9	11.7	11.7	11.7	11.7
TFR	2.04	1.96	1.96	1.96	1.96

Figure A6.14: Age-specific fertility rate assumptions – North West Leicestershire					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	27.2	26.8	26.8	26.8	26.8
20-24	85.2	81.7	81.7	81.7	81.7
25-29	124.1	115.8	115.8	115.8	115.8
30-34	118.9	111.5	111.5	111.5	111.5
35-39	53.6	49.9	49.9	49.9	49.9
Over 40	9.9	9.5	9.5	9.5	9.5
TFR	2.09	1.97	1.97	1.97	1.97

Figure A6.15: Age-specific fertility rate assumptions – Oadby & Wigston					
Age group	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031
Under 20	10.7	10.8	10.8	10.8	10.8
20-24	52.7	49.0	49.0	49.0	49.0
25-29	127.9	124.4	124.4	124.4	124.4
30-34	105.6	103.0	103.0	103.0	103.0
35-39	40.4	38.3	38.3	38.3	38.3
Over 40	8.8	7.8	7.8	7.8	7.8
TFR	1.77	1.70	1.70	1.70	1.70

MORTALITY (DEATH) RATES

A6.12 Death rates input into the model are based on life tables produced by ONS for use in national projections. These are then adjusted to take account of the different life expectancy in each local authority area. A life table is a table which shows, for each age, what the probability is that a person of that age will die before their next birthday. Life tables are constructed separately for men and for women because of their different mortality rates.

A6.13 For data on death rates we have looked at estimates of life expectancy at birth and also considered detailed outputs from the ONS 2008-based population projections (which includes a main estimate of how life expectancy will improve in the future).

A6.14 The tables below show estimated like expectancy within each five year projection period and for each five year age band (and by sex). The life expectancy figures can therefore be thought of as a mid-point of the period. In applying the figures we have assumed a linear improvement over time – this means that at the start of any five-year period life expectancy is lower than at the end of the period and so the model has also taken account of likely deaths as they occur throughout a five year period (i.e. once someone has died they cannot continue to have any likelihood of dying again). This additional assumption has a limited impact on the figures and main affects the oldest (85+) age group.

A6.15 One additional assumption worth noting is in relation to the 0-4 age group – within this age group people aged under 1 are far more likely to die than those aged 1-4 and so the modelling has been adjusted to slightly increase death rates at the younger end of this age group. In fact, because death rates for under 1s are still low this adjustment again has only a very minor impact on outputs.

Figure A6.16: Life table death rates, life expectancy and projected life expectancy								
Age group	Blaby				Charnwood			
	2006-2011		2026-2031		2006-2011		2026-2031	
	Males	Females	Males	Females	Males	Females	Males	Females
0-4	0.00113	0.00079	0.00094	0.00066	0.00121	0.00081	0.00100	0.00067
5-9	0.00008	0.00006	0.00005	0.00005	0.00009	0.00008	0.00006	0.00006
10-14	0.00013	0.00009	0.00009	0.00007	0.00012	0.00009	0.00009	0.00007
15-19	0.00036	0.00022	0.00026	0.00016	0.00029	0.00020	0.00021	0.00014
20-24	0.00050	0.00025	0.00031	0.00016	0.00042	0.00023	0.00026	0.00014
25-29	0.00079	0.00049	0.00051	0.00036	0.00079	0.00054	0.00050	0.00038
30-34	0.00110	0.00069	0.00083	0.00056	0.00116	0.00072	0.00089	0.00058
35-39	0.00106	0.00085	0.00083	0.00070	0.00119	0.00075	0.00094	0.00061
40-44	0.00146	0.00102	0.00117	0.00081	0.00143	0.00097	0.00114	0.00076
45-49	0.00259	0.00192	0.00199	0.00147	0.00239	0.00188	0.00173	0.00145
50-54	0.00412	0.00330	0.00303	0.00269	0.00418	0.00303	0.00306	0.00238
55-59	0.00606	0.00498	0.00444	0.00398	0.00698	0.00469	0.00539	0.00378
60-64	0.00888	0.00732	0.00644	0.00559	0.00968	0.00680	0.00719	0.00518
65-69	0.01638	0.01160	0.01162	0.00911	0.01737	0.01167	0.01266	0.00910
70-74	0.02790	0.02004	0.01993	0.01538	0.02979	0.02080	0.02142	0.01617
75-79	0.04049	0.03223	0.02785	0.02369	0.04587	0.03098	0.03075	0.02228
80-84	0.07167	0.05101	0.04762	0.03703	0.07939	0.05616	0.05220	0.03918
85+	0.15073	0.12374	0.09739	0.08458	0.16505	0.13758	0.10704	0.09230
e0	80.1	84.2	84.1	87.4	79.4	83.1	83.4	86.4

Figure A6.17: Life table death rates, life expectancy and projected life expectancy								
Age group	Harborough				Hinckley & Bosworth			
	2006-2011		2026-2031		2006-2011		2026-2031	
	Males	Females	Males	Females	Males	Females	Males	Females
0-4	0.00097	0.00093	0.00080	0.00073	0.00115	0.00088	0.00089	0.00068
5-9	0.00007	0.00007	0.00005	0.00005	0.00009	0.00008	0.00006	0.00006
10-14	0.00013	0.00010	0.00011	0.00007	0.00011	0.00009	0.00009	0.00007
15-19	0.00036	0.00024	0.00027	0.00015	0.00040	0.00026	0.00026	0.00017
20-24	0.00065	0.00022	0.00037	0.00014	0.00043	0.00022	0.00025	0.00014
25-29	0.00081	0.00051	0.00052	0.00038	0.00078	0.00048	0.00051	0.00034
30-34	0.00111	0.00071	0.00083	0.00055	0.00109	0.00074	0.00078	0.00058
35-39	0.00109	0.00069	0.00087	0.00056	0.00107	0.00076	0.00087	0.00061
40-44	0.00152	0.00105	0.00115	0.00083	0.00145	0.00108	0.00118	0.00083
45-49	0.00232	0.00194	0.00171	0.00144	0.00242	0.00181	0.00180	0.00134
50-54	0.00426	0.00303	0.00311	0.00238	0.00403	0.00319	0.00305	0.00248
55-59	0.00601	0.00496	0.00458	0.00383	0.00638	0.00506	0.00463	0.00395
60-64	0.00859	0.00738	0.00647	0.00578	0.00913	0.00679	0.00676	0.00528
65-69	0.01585	0.01282	0.01192	0.00998	0.01613	0.01311	0.01179	0.00978
70-74	0.02788	0.01983	0.02057	0.01522	0.02865	0.02245	0.02039	0.01691
75-79	0.04281	0.03019	0.02932	0.02185	0.04139	0.03390	0.02771	0.02457
80-84	0.06768	0.05509	0.04544	0.03951	0.07391	0.05942	0.04845	0.04205
85+	0.16120	0.12809	0.10481	0.08630	0.17676	0.13883	0.10936	0.09321
e0	79.6	84.1	83.5	87.4	79.9	83.9	84.0	87.3

Figure A6.18: Life table death rates, life expectancy and projected life expectancy								
Age group	Leicester				Melton			
	2006-2011		2026-2031		2006-2011		2026-2031	
	Males	Females	Males	Females	Males	Females	Males	Females
0-4	0.00145	0.00100	0.00114	0.00077	0.00106	0.00088	0.00086	0.00070
5-9	0.00014	0.00007	0.00011	0.00006	0.00008	0.00007	0.00006	0.00005
10-14	0.00015	0.00013	0.00012	0.00010	0.00012	0.00010	0.00009	0.00008
15-19	0.00036	0.00024	0.00026	0.00016	0.00034	0.00021	0.00024	0.00015
20-24	0.00037	0.00022	0.00022	0.00015	0.00047	0.00021	0.00027	0.00014
25-29	0.00080	0.00051	0.00052	0.00037	0.00076	0.00044	0.00047	0.00033
30-34	0.00127	0.00082	0.00091	0.00061	0.00129	0.00073	0.00095	0.00060
35-39	0.00129	0.00080	0.00099	0.00064	0.00121	0.00079	0.00105	0.00064
40-44	0.00199	0.00118	0.00149	0.00093	0.00173	0.00112	0.00139	0.00090
45-49	0.00303	0.00200	0.00214	0.00154	0.00273	0.00230	0.00197	0.00176
50-54	0.00560	0.00376	0.00406	0.00292	0.00439	0.00353	0.00332	0.00273
55-59	0.00865	0.00629	0.00629	0.00475	0.00750	0.00555	0.00576	0.00421
60-64	0.01255	0.00935	0.00867	0.00717	0.00957	0.00779	0.00706	0.00584
65-69	0.02254	0.01567	0.01640	0.01207	0.01802	0.01321	0.01331	0.01043
70-74	0.03696	0.02682	0.02657	0.02001	0.02869	0.02110	0.02041	0.01628
75-79	0.05505	0.04057	0.03693	0.02910	0.04472	0.03540	0.03026	0.02526
80-84	0.09133	0.06578	0.05807	0.04508	0.07451	0.05617	0.04962	0.04056
85+	0.18061	0.14596	0.11636	0.09777	0.19751	0.12689	0.12061	0.08600
e0	75.4	80.0	79.7	83.6	80.3	83.1	84.2	86.4

Figure A6.19: Life table death rates, life expectancy and projected life expectancy								
Age group	North West Leicestershire				Oadby & Wigston			
	2006-2011		2026-2031		2006-2011		2026-2031	
	Males	Females	Males	Females	Males	Females	Males	Females
0-4	0.00107	0.00091	0.00085	0.00074	0.00123	0.00104	0.00099	0.00080
5-9	0.00008	0.00008	0.00006	0.00007	0.00008	0.00006	0.00006	0.00005
10-14	0.00014	0.00009	0.00010	0.00007	0.00013	0.00010	0.00010	0.00007
15-19	0.00044	0.00024	0.00029	0.00015	0.00032	0.00022	0.00022	0.00015
20-24	0.00054	0.00022	0.00031	0.00015	0.00054	0.00027	0.00028	0.00017
25-29	0.00083	0.00048	0.00054	0.00036	0.00089	0.00043	0.00058	0.00033
30-34	0.00113	0.00075	0.00083	0.00060	0.00121	0.00084	0.00086	0.00065
35-39	0.00122	0.00078	0.00101	0.00064	0.00119	0.00076	0.00098	0.00063
40-44	0.00155	0.00112	0.00119	0.00087	0.00165	0.00129	0.00128	0.00096
45-49	0.00275	0.00196	0.00196	0.00146	0.00256	0.00207	0.00192	0.00161
50-54	0.00477	0.00386	0.00354	0.00289	0.00497	0.00332	0.00359	0.00259
55-59	0.00715	0.00514	0.00546	0.00413	0.00690	0.00513	0.00524	0.00406
60-64	0.01045	0.00780	0.00749	0.00592	0.01050	0.00782	0.00761	0.00576
65-69	0.01919	0.01405	0.01393	0.01079	0.01691	0.01304	0.01241	0.01016
70-74	0.03000	0.02396	0.02114	0.01782	0.02917	0.02223	0.02058	0.01709
75-79	0.04862	0.03538	0.03202	0.02500	0.04491	0.03302	0.03055	0.02344
80-84	0.08682	0.05728	0.05469	0.04037	0.08209	0.05721	0.05184	0.03879
85+	0.16754	0.13832	0.10966	0.09129	0.16385	0.13341	0.10315	0.09020
e0	78.6	82.0	82.8	85.4	79.9	83.0	84.1	86.5

MIGRATION

A6.16 Migration is arguably the hardest of the key inputs to the model to accurately project. This is mainly because past trend data can be highly variable in quality and to get a detailed age breakdown (important for this piece of work) is difficult to provide with any confidence. For our projections we have the added difficultly that using five year periods and five year age bands means that additional modelling is required to take account of both multiple moves (e.g. the population who move both in and out of an area or vice versa in any given five-year period) and also the fact that a migrant can move in one age band but actually appear in another in five years time (analytically this latter point mainly affects the 0-4 age groups and people aged 18 & 19).

A6.17 It should be noted that these issues would also impact on annual estimates but are more pronounced when projecting in five year chunks.

A6.18 To provide what we believe is the most realistic profile of future migration patterns we have used information from the ONS 2008-based population projections (based on single year data) and have adjusted this on the basis of multiple moves and five-year age band issues to provide a baseline position which allows us to interrogate different assumptions around migration. Where we have built up scenarios it has been assumed that the level of out-migration remains the same with in-migration used as a variable.

A6.19 Below we have provided a series of tables setting out the background data used for each local authority. The first table looks at data for males in Blaby (in the period 2006 to 2011) with an explanation for the steps taken to turn the annual data into data to be used for modelling. Subsequent tables for other time periods and local authorities are simply presented as the data although the same process has been gone through in each of these cases.

A6.20 The table shows estimated levels of in- and out-migration to/from Blaby by age band for males in the period 2006 to 2011. Our start position (first two columns) is the overall level of migration per annum taken by simply averaging figures for each year of the period. This shows total in-migration of 2,430 people and out-migration of 2,390. By estimating the number of people likely to make a multiple move (based on the relative likelihood of any person in each age band moving) we see that our in- and out-migration figures drop by around 18% - the biggest drops are for those age groups with the highest levels of migration with older age groups tending to see very little adjustment. The second adjustment (also reflected in the table below) shows cases where a move is made in one age group but actually impacts on a different group in five years time. The table shows that this has quite an impact on those aged 0-4 – this makes sense as a large number will be aged 5-9 by 2011.

A6.21 The final net column in the table is fed directly into our projection model. For example we would project that in 2011 there would be around 30 more males per annum aged 0-4 due to migration impacts (about 150 over the five year period). Whilst the 20-24 age group would have around 450 less people – this is despite the base data showing a net in-migration for this age group and is due to the fact that there is a negative net-migration of the 15-19 age group – many of whom are expected to be aged 18 or 19 and will therefore impact on the 20-24 age group in five years time.

A6.22 The tables below show the same information for all eight authorities, for males and females and for the initial 2006-2011 period and the final 2026-2031 period. It should be noted that the total level of net migration shown in the tables for 2006-2011 does not match our overall trend-based flow of net migration. This is as we have modelled migration in the period 2006-2009 on actual data for this period from ONS.

Blaby

Figure A6.20: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	230	180	40	120	100	30
5-9	120	110	10	130	110	20
10-14	100	100	10	90	90	10
15-19	100	220	-120	90	110	-30
20-24	310	270	40	170	260	-90
25-29	370	320	50	280	200	80
30-34	310	250	60	240	210	30
35-39	220	210	10	200	170	30
40-44	180	190	0	170	170	0
45-49	120	140	-20	130	140	-10
50-54	90	110	-20	90	110	-20
55-59	80	80	0	70	80	-10
60-64	60	80	-10	60	70	-10
65-69	50	50	0	50	50	-10
70-74	30	30	0	30	30	0
75-79	20	20	0	20	20	0
80-84	20	20	0	10	20	0
85+	20	30	0	20	20	-10
TOTAL	2,430	2,390	30	1,970	1,950	20

Figure A6.21: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	210	160	50	120	90	30
5-9	120	100	20	130	100	30
10-14	100	90	0	90	80	10
15-19	120	320	-200	90	130	-50
20-24	460	390	70	200	330	-140
25-29	470	340	130	370	230	130
30-34	300	220	80	280	190	90
35-39	180	170	10	180	160	30
40-44	140	140	0	140	140	0
45-49	100	120	-20	100	110	-10
50-54	90	90	0	80	90	-10
55-59	70	70	0	70	70	0
60-64	70	60	10	60	60	0
65-69	50	40	0	50	40	0
70-74	30	30	0	30	30	0
75-79	30	30	0	30	30	0
80-84	30	30	0	30	30	0
85+	60	60	0	50	50	0
TOTAL	2,620	2,480	140	2,080	1,960	120

Figure A6.22: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	250	200	50	120	100	20
5-9	140	130	20	140	110	20
10-14	130	110	20	110	90	10
15-19	110	220	-110	90	110	-20
20-24	310	240	70	150	210	-60
25-29	380	290	80	250	170	80
30-34	380	300	90	250	200	60
35-39	270	240	30	230	190	40
40-44	200	190	10	170	160	10
45-49	130	130	-10	120	120	-10
50-54	90	100	-10	80	90	-10
55-59	90	90	0	70	70	0
60-64	80	80	-10	70	70	0
65-69	70	60	10	60	60	0
70-74	40	40	0	40	40	0
75-79	30	30	0	30	30	0
80-84	30	30	-10	20	30	0
85+	50	80	-20	50	70	-20
TOTAL	2,770	2,560	210	2,040	1,930	110

Figure A6.23: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	230	170	60	110	80	30
5-9	150	110	30	140	110	30
10-14	120	100	10	100	90	10
15-19	130	320	-200	90	130	-40
20-24	460	370	90	180	290	-110
25-29	480	350	130	320	200	120
30-34	370	260	110	290	200	90
35-39	220	190	30	210	170	40
40-44	150	150	10	140	130	10
45-49	100	110	-10	90	100	-10
50-54	90	90	0	70	70	0
55-59	80	80	0	60	60	0
60-64	80	60	20	70	60	10
65-69	60	50	10	60	50	10
70-74	40	40	0	40	40	0
75-79	40	50	-10	30	40	-10
80-84	50	60	-10	40	50	-10
85+	110	130	-20	90	110	-20
TOTAL	2,950	2,700	250	2,120	1,980	140

Charnwood

Figure A6.24: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	260	210	50	130	100	30
5-9	150	150	0	150	130	20
10-14	130	110	30	110	90	20
15-19	2,140	300	1,840	550	120	420
20-24	1,690	2,850	-1,160	1,710	930	790
25-29	720	1,000	-280	450	1,190	-750
30-34	470	440	30	320	360	-40
35-39	350	320	20	270	240	30
40-44	250	240	10	230	210	20
45-49	190	170	20	180	160	20
50-54	140	140	0	130	120	10
55-59	100	100	0	90	90	0
60-64	90	100	-10	70	80	-10
65-69	60	70	-10	60	70	-10
70-74	30	30	0	30	30	0
75-79	20	20	0	20	20	0
80-84	20	20	10	20	20	0
85+	30	30	0	20	20	0
TOTAL	6,860	6,300	560	4,550	3,990	560

Figure A6.25: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	260	220	40	130	110	20
5-9	150	120	30	150	110	40
10-14	130	100	20	110	80	20
15-19	1,550	380	1,170	410	150	270
20-24	1,680	2,350	-670	1,290	760	520
25-29	710	770	-70	470	820	-350
30-34	410	370	40	310	300	10
35-39	290	240	40	250	200	50
40-44	200	200	0	180	170	10
45-49	150	140	10	140	130	10
50-54	120	120	0	110	100	10
55-59	100	110	-10	80	90	-10
60-64	70	100	-30	70	90	-20
65-69	40	50	-10	40	60	-10
70-74	40	30	10	30	30	0
75-79	40	40	10	40	30	10
80-84	50	30	10	40	30	10
85+	80	60	30	80	50	30
TOTAL	6,060	5,430	620	3,910	3,310	600

Figure A6.26: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	280	230	50	130	100	30
5-9	180	180	0	150	130	20
10-14	160	120	30	120	100	20
15-19	2,170	300	1,870	500	120	390
20-24	1,700	3,020	-1,330	1,550	930	620
25-29	730	990	-260	400	1,090	-680
30-34	550	540	10	330	380	-50
35-39	410	380	30	300	280	20
40-44	280	250	20	230	210	20
45-49	200	170	30	160	140	20
50-54	140	120	20	110	90	20
55-59	120	110	10	90	80	10
60-64	100	100	0	80	80	0
65-69	80	80	0	70	70	0
70-74	50	50	0	40	40	0
75-79	40	30	0	30	30	0
80-84	50	30	10	30	30	10
85+	70	70	-10	60	60	0
TOTAL	7,270	6,790	480	4,390	3,940	440

Figure A6.27: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	280	250	30	120	110	10
5-9	180	140	40	150	120	30
10-14	150	120	30	120	90	20
15-19	1,600	390	1,210	380	140	250
20-24	1,690	2,520	-830	1,180	780	400
25-29	720	790	-70	420	780	-360
30-34	480	450	30	320	320	0
35-39	330	280	50	270	230	40
40-44	210	200	0	180	160	20
45-49	150	130	10	120	120	10
50-54	110	110	0	90	80	10
55-59	110	120	-10	80	80	0
60-64	90	110	-30	70	90	-10
65-69	60	70	-10	50	60	-10
70-74	50	40	10	40	40	0
75-79	60	50	10	40	30	10
80-84	70	50	10	50	40	10
85+	150	120	30	130	100	30
TOTAL	6,480	5,950	530	3,820	3,360	470

Harborough

Figure A6.28: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	200	120	90	120	60	60
5-9	130	90	40	140	80	60
10-14	100	80	10	100	70	30
15-19	110	290	-180	80	110	-20
20-24	280	330	-50	140	320	-180
25-29	240	220	30	190	150	40
30-34	240	170	70	190	130	60
35-39	220	150	70	200	120	80
40-44	190	150	50	180	120	60
45-49	140	120	20	140	110	30
50-54	110	90	20	110	80	20
55-59	90	80	0	80	70	10
60-64	90	70	20	80	60	10
65-69	50	50	0	60	50	10
70-74	30	30	10	30	30	10
75-79	30	20	10	30	20	10
80-84	20	20	10	20	10	10
85+	30	20	10	20	20	10
TOTAL	2,300	2,090	220	1,900	1,600	300

Figure A6.29: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	180	110	80	110	50	50
5-9	120	90	40	130	70	60
10-14	100	80	20	100	70	30
15-19	110	390	-280	80	120	-40
20-24	380	370	10	150	370	-220
25-29	310	250	60	250	160	90
30-34	270	160	110	230	140	90
35-39	210	130	90	200	110	90
40-44	170	130	40	170	110	60
45-49	120	110	20	130	100	30
50-54	100	90	10	90	80	20
55-59	80	70	10	70	60	10
60-64	90	60	20	80	50	20
65-69	60	40	10	60	40	20
70-74	40	30	10	40	20	10
75-79	40	20	10	30	20	10
80-84	40	30	0	30	20	10
85+	60	50	20	60	40	20
TOTAL	2,500	2,200	290	2,030	1,650	380

Figure A6.30: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	220	120	100	110	50	60
5-9	160	90	70	150	80	70
10-14	110	90	30	110	70	40
15-19	110	300	-190	80	100	-20
20-24	280	320	-40	130	300	-170
25-29	250	220	30	170	130	40
30-34	300	200	100	200	130	70
35-39	260	160	110	220	130	90
40-44	200	130	70	180	110	80
45-49	140	110	30	130	90	40
50-54	100	80	20	90	60	20
55-59	100	90	10	80	70	10
60-64	100	80	20	80	70	10
65-69	70	70	0	70	60	10
70-74	50	40	0	40	40	0
75-79	40	30	10	30	30	10
80-84	40	40	10	40	30	10
85+	70	60	10	60	50	10
TOTAL	2,610	2,230	380	1,970	1,600	380

Figure A6.31: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	200	110	90	100	50	50
5-9	150	90	60	140	70	60
10-14	120	80	30	110	70	40
15-19	110	410	-290	80	120	-40
20-24	390	330	60	140	330	-180
25-29	320	260	60	230	140	90
30-34	330	180	140	240	140	100
35-39	250	130	120	220	110	110
40-44	180	120	60	170	100	70
45-49	120	100	20	110	80	30
50-54	90	90	10	80	70	10
55-59	90	90	0	70	60	10
60-64	100	80	20	80	60	20
65-69	80	60	20	70	50	20
70-74	50	40	10	50	40	10
75-79	50	40	10	40	30	10
80-84	60	70	-10	50	50	0
85+	120	100	20	110	90	20
TOTAL	2,800	2,370	430	2,080	1,650	420

Hinckley & Bosworth

Figure A6.32: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	200	150	50	110	90	30
5-9	110	100	10	120	100	20
10-14	110	90	20	90	80	10
15-19	120	270	-140	100	120	-20
20-24	330	260	70	180	300	-120
25-29	310	270	40	280	200	80
30-34	280	240	40	220	200	20
35-39	220	170	60	200	160	40
40-44	200	170	30	190	160	30
45-49	140	130	10	150	140	10
50-54	110	90	20	110	90	10
55-59	90	80	10	80	70	10
60-64	80	80	0	70	80	0
65-69	50	50	0	60	60	0
70-74	30	30	0	30	30	0
75-79	20	20	0	20	20	0
80-84	20	10	0	20	10	0
85+	20	20	0	20	20	0
TOTAL	2,440	2,220	220	2,050	1,920	130

Figure A6.33: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	200	140	50	110	80	30
5-9	120	90	30	130	100	30
10-14	100	80	10	90	80	10
15-19	140	320	-180	90	120	-30
20-24	450	330	120	220	330	-110
25-29	380	300	70	340	230	110
30-34	270	210	60	240	190	50
35-39	180	140	30	180	140	30
40-44	160	120	30	150	120	20
45-49	120	90	20	120	100	20
50-54	100	80	20	100	80	20
55-59	80	80	0	80	70	10
60-64	70	60	10	70	70	0
65-69	50	40	10	50	40	10
70-74	30	30	0	30	30	0
75-79	30	30	0	30	20	0
80-84	30	20	10	30	20	10
85+	50	50	10	50	40	10
TOTAL	2,540	2,230	310	2,110	1,890	220

Figure A6.34: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	210	150	60	110	80	30
5-9	130	100	30	130	100	20
10-14	120	100	30	100	90	20
15-19	130	260	-140	90	110	-20
20-24	330	250	80	160	270	-100
25-29	310	260	50	250	170	70
30-34	330	270	60	230	200	30
35-39	260	190	70	230	180	40
40-44	210	160	50	190	150	40
45-49	140	120	20	130	120	20
50-54	100	80	20	90	80	10
55-59	100	80	20	80	70	10
60-64	90	80	10	80	80	0
65-69	70	70	0	60	60	0
70-74	40	40	0	40	40	0
75-79	30	30	0	30	30	0
80-84	30	30	0	30	20	0
85+	50	60	-20	50	60	-20
TOTAL	2,680	2,350	340	2,070	1,910	160

Figure A6.35: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	210	150	60	110	80	30
5-9	140	100	40	130	100	30
10-14	110	90	20	100	80	20
15-19	140	320	-180	90	120	-30
20-24	450	310	140	210	290	-90
25-29	380	300	70	300	210	90
30-34	310	240	80	250	200	50
35-39	200	150	50	190	150	40
40-44	160	120	40	150	120	30
45-49	110	90	20	100	90	20
50-54	100	80	20	80	70	10
55-59	90	90	10	80	70	10
60-64	90	70	20	80	70	10
65-69	60	50	10	60	50	10
70-74	40	40	0	40	40	0
75-79	40	40	0	30	30	0
80-84	50	40	10	40	40	0
85+	90	90	0	90	90	0
TOTAL	2,780	2,370	410	2,130	1,900	230

Leicester

Figure A6.36: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	600	770	-170	300	410	-110
5-9	370	500	-130	330	480	-150
10-14	290	350	-60	240	330	-90
15-19	1,520	580	930	510	310	200
20-24	3,280	2,830	450	2,250	1,230	1,010
25-29	2,090	2,120	-30	1,220	1,380	-160
30-34	1,220	1,370	-150	840	1,020	-180
35-39	910	960	-50	650	760	-110
40-44	600	690	-90	530	610	-80
45-49	390	390	0	350	410	-60
50-54	270	300	-20	250	260	-20
55-59	150	210	-60	150	210	-60
60-64	130	190	-60	110	170	-60
65-69	80	110	-30	80	120	-40
70-74	70	90	-20	60	80	-20
75-79	30	40	-10	30	50	-20
80-84	30	40	-10	20	30	-10
85+	40	40	0	40	40	0
TOTAL	12,080	11,580	500	7,970	7,920	50

Figure A6.37: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	570	730	-160	280	400	-120
5-9	300	460	-160	300	450	-150
10-14	280	330	-50	210	310	-90
15-19	2,200	610	1,590	650	320	330
20-24	4,330	3,900	430	3,120	1,550	1,570
25-29	1,850	2,260	-410	1,230	1,830	-590
30-34	970	1,120	-140	760	1,000	-240
35-39	580	700	-120	500	630	-130
40-44	380	480	-100	340	470	-130
45-49	280	290	-10	250	300	-40
50-54	180	250	-70	180	230	-50
55-59	120	200	-80	110	190	-80
60-64	90	180	-90	90	170	-80
65-69	50	100	-50	50	120	-60
70-74	40	80	-30	40	70	-40
75-79	40	70	-20	40	60	-30
80-84	50	70	-20	40	60	-20
85+	90	110	-30	80	110	-40
TOTAL	12,410	11,940	470	8,270	8,260	10

Figure A6.38: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	640	860	-220	290	390	-90
5-9	420	630	-210	350	500	-160
10-14	330	470	-150	260	390	-120
15-19	1,550	670	880	490	330	160
20-24	3,320	2,990	330	2,130	1,180	940
25-29	2,140	2,170	-30	1,160	1,230	-70
30-34	1,390	1,600	-210	900	1,000	-100
35-39	1,020	1,170	-160	720	840	-120
40-44	630	810	-170	540	630	-90
45-49	390	450	-60	340	420	-80
50-54	270	320	-50	220	250	-20
55-59	170	250	-80	150	200	-50
60-64	150	240	-100	120	190	-70
65-69	100	160	-60	90	140	-50
70-74	80	120	-40	70	100	-30
75-79	50	60	-20	40	60	-20
80-84	50	60	-10	40	50	-10
85+	110	80	30	90	70	30
TOTAL	12,810	13,120	-310	8,000	7,960	40

Figure A6.39: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	610	830	-220	280	380	-100
5-9	350	600	-240	320	480	-160
10-14	310	440	-130	230	370	-130
15-19	2,250	700	1,550	620	330	290
20-24	4,410	4,140	270	2,970	1,510	1,450
25-29	1,900	2,330	-430	1,190	1,610	-420
30-34	1,090	1,390	-300	790	1,020	-240
35-39	630	880	-250	540	720	-180
40-44	390	560	-170	340	490	-150
45-49	270	320	-50	230	300	-70
50-54	180	260	-80	160	200	-50
55-59	140	230	-90	110	180	-60
60-64	110	230	-120	100	170	-80
65-69	60	140	-80	60	130	-70
70-74	60	90	-40	40	80	-40
75-79	60	80	-20	40	60	-20
80-84	80	80	0	60	60	-10
85+	170	160	10	150	130	10
TOTAL	13,070	13,460	-390	8,210	8,230	-10

Melton

Figure A6.40: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	90	70	20	50	40	10
5-9	60	50	10	60	50	10
10-14	60	60	0	50	50	0
15-19	70	150	-80	50	70	-20
20-24	150	150	0	90	150	-60
25-29	140	130	10	110	90	20
30-34	110	100	10	100	90	10
35-39	110	80	30	90	70	20
40-44	100	70	30	90	70	20
45-49	80	70	10	80	60	20
50-54	60	50	10	60	50	10
55-59	50	50	0	40	40	0
60-64	40	40	0	40	40	0
65-69	30	30	0	30	30	0
70-74	20	10	0	20	20	0
75-79	10	10	0	10	10	0
80-84	10	10	0	10	10	0
85+	10	10	0	10	10	0
TOTAL	1,160	1,130	40	1,000	950	60

Figure A6.41: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	100	70	30	60	40	20
5-9	50	50	0	60	50	20
10-14	50	50	0	50	50	0
15-19	110	170	-60	60	70	-10
20-24	230	230	0	120	180	-60
25-29	140	160	-20	120	110	0
30-34	120	80	40	110	80	20
35-39	100	80	20	100	70	30
40-44	80	70	10	80	70	10
45-49	70	60	10	70	60	10
50-54	50	50	0	50	50	0
55-59	50	40	10	40	40	10
60-64	40	40	0	40	40	0
65-69	30	20	0	30	30	0
70-74	20	10	0	20	10	0
75-79	20	10	0	20	10	0
80-84	20	10	0	20	10	0
85+	20	20	0	20	20	0
TOTAL	1,280	1,230	50	1,050	980	70

Figure A6.42: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	100	70	30	50	40	10
5-9	60	50	10	60	50	10
10-14	70	60	10	50	50	10
15-19	70	140	-70	50	70	-20
20-24	150	140	10	80	140	-60
25-29	140	120	20	100	90	20
30-34	140	110	20	100	90	10
35-39	120	90	40	110	80	20
40-44	100	60	40	90	60	30
45-49	70	50	20	70	50	20
50-54	50	40	10	50	40	10
55-59	50	50	10	40	40	10
60-64	40	50	0	40	40	0
65-69	40	40	0	30	40	0
70-74	20	20	0	20	20	0
75-79	20	20	0	10	20	0
80-84	10	20	-10	10	20	-10
85+	30	20	0	30	30	0
TOTAL	1,280	1,140	140	1,020	950	70

Figure A6.43: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	110	70	40	60	40	20
5-9	70	50	10	70	50	20
10-14	60	60	0	50	50	0
15-19	110	160	-50	60	70	-10
20-24	240	210	20	120	170	-50
25-29	150	150	-10	110	100	10
30-34	150	100	50	110	90	20
35-39	110	80	40	100	70	30
40-44	80	60	20	80	60	20
45-49	60	50	10	60	50	10
50-54	40	40	10	40	40	10
55-59	50	40	10	40	30	10
60-64	40	40	0	40	40	0
65-69	40	30	10	30	30	0
70-74	20	20	0	20	20	0
75-79	20	20	0	20	20	0
80-84	20	30	0	20	20	0
85+	40	40	0	40	40	0
TOTAL	1,410	1,250	160	1,070	980	90

North West Leicestershire

Figure A6.44: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	210	140	70	120	80	40
5-9	110	100	10	130	100	30
10-14	90	80	10	90	80	10
15-19	100	250	-140	80	110	-30
20-24	280	240	40	160	250	-100
25-29	300	220	80	250	170	80
30-34	250	190	60	220	160	60
35-39	210	170	30	190	150	40
40-44	190	160	30	180	150	30
45-49	130	130	0	140	130	10
50-54	100	80	10	100	90	10
55-59	80	70	0	80	70	10
60-64	70	70	0	70	70	0
65-69	40	40	0	50	50	-10
70-74	20	30	0	30	30	0
75-79	20	10	10	20	20	0
80-84	10	10	0	10	10	0
85+	10	10	10	20	10	10
TOTAL	2,230	2,010	220	1,910	1,730	180

Figure A6.45: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	190	130	50	110	80	30
5-9	110	90	20	120	100	30
10-14	80	80	0	80	70	10
15-19	130	320	-190	90	130	-40
20-24	380	290	90	190	310	-120
25-29	330	250	90	290	190	100
30-34	250	190	60	230	170	70
35-39	190	150	40	180	140	40
40-44	130	120	10	140	130	20
45-49	120	100	20	110	100	10
50-54	90	80	10	90	80	10
55-59	70	70	0	70	70	0
60-64	70	60	10	70	60	10
65-69	30	40	-10	40	40	0
70-74	30	20	10	30	20	0
75-79	20	20	10	20	20	10
80-84	20	20	10	20	10	10
85+	40	40	0	40	40	0
TOTAL	2,280	2,060	220	1,930	1,740	180

Figure A6.46: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	220	140	80	120	70	40
5-9	130	110	20	130	100	30
10-14	110	90	10	100	80	10
15-19	110	250	-150	80	110	-30
20-24	290	240	40	150	240	-90
25-29	300	230	70	230	160	60
30-34	300	220	80	230	170	60
35-39	250	190	60	220	160	60
40-44	200	150	40	180	140	40
45-49	130	120	10	130	110	20
50-54	90	80	10	80	80	10
55-59	90	90	0	70	70	10
60-64	80	80	0	70	70	0
65-69	60	50	0	60	60	0
70-74	30	30	0	30	30	0
75-79	30	20	10	20	20	0
80-84	30	20	0	20	20	0
85+	40	20	10	40	30	10
TOTAL	2,440	2,150	290	1,980	1,730	250

Figure A6.47: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	200	140	60	100	70	30
5-9	130	100	30	130	90	40
10-14	100	90	10	90	80	20
15-19	130	330	-200	90	130	-40
20-24	380	280	90	180	280	-100
25-29	330	250	80	270	180	90
30-34	300	210	90	240	170	80
35-39	210	160	60	200	140	60
40-44	140	120	20	140	110	30
45-49	110	90	20	100	80	20
50-54	90	80	10	80	70	10
55-59	80	80	0	70	70	0
60-64	80	60	20	70	60	10
65-69	40	50	-10	50	50	0
70-74	40	30	10	30	30	0
75-79	40	30	10	30	20	10
80-84	30	30	10	30	20	10
85+	70	70	0	70	70	0
TOTAL	2,480	2,190	290	1,990	1,740	250

Oadby & Wigston

Figure A6.48: Male migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	140	120	10	130	100	30
5-9	110	70	30	70	70	0
10-14	90	70	20	90	70	20
15-19	770	190	580	80	60	20
20-24	470	780	-310	210	90	120
25-29	210	250	-40	560	370	190
30-34	160	130	40	90	280	-190
35-39	150	120	30	110	60	50
40-44	130	100	30	110	100	10
45-49	90	90	-10	110	100	10
50-54	60	70	0	80	90	-10
55-59	40	50	-10	60	70	-10
60-64	30	40	-10	40	50	-10
65-69	20	20	0	30	40	-20
70-74	20	20	0	20	30	-10
75-79	20	20	10	20	20	0
80-84	20	10	0	20	20	0
85+	20	20	10	10	10	0
TOTAL	2,540	2,170	370	20	10	0

Figure A6.49: Female migration data (2006-2011) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	120	100	20	60	60	10
5-9	100	70	30	80	60	20
10-14	80	80	10	70	60	10
15-19	850	270	580	220	110	110
20-24	480	940	-460	360	310	40
25-29	290	270	10	150	260	-110
30-34	170	160	10	120	110	10
35-39	120	110	20	100	100	0
40-44	90	90	10	90	90	0
45-49	70	80	-10	60	80	-10
50-54	50	60	-10	50	60	-10
55-59	40	40	-10	30	50	-10
60-64	30	40	-10	30	40	-10
65-69	30	20	10	30	30	0
70-74	30	20	0	20	20	0
75-79	30	20	0	20	20	0
80-84	30	30	0	20	20	0
85+	50	40	10	40	40	0
TOTAL	2,640	2,440	200	1,550	1,520	30

Figure A6.50: Male migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	150	140	10	70	60	0
5-9	130	90	40	100	80	20
10-14	110	70	40	90	60	30
15-19	790	190	600	200	70	130
20-24	480	830	-350	520	320	200
25-29	210	350	-140	80	280	-200
30-34	190	240	-40	110	170	-60
35-39	170	160	20	120	130	0
40-44	140	110	30	120	90	30
45-49	90	80	10	80	70	10
50-54	70	50	10	50	40	10
55-59	50	50	-10	40	40	0
60-64	40	50	-10	30	40	-10
65-69	30	30	0	30	30	0
70-74	30	20	10	20	20	0
75-79	30	20	10	20	20	10
80-84	30	20	10	20	20	10
85+	60	50	10	50	40	10
TOTAL	2,800	2,560	240	1,770	1,580	190

Figure A6.51: Female migration data (2026-2031) – annual						
Age group	Base data			Adjusted data for modelling		
	In-	Out-	Net	In-	Out-	Net
0-4	140	130	10	60	60	10
5-9	120	80	40	90	70	20
10-14	100	90	20	80	60	20
15-19	870	250	620	210	90	130
20-24	490	1,000	-520	340	280	70
25-29	290	310	-20	130	250	-120
30-34	200	210	-10	130	140	-10
35-39	150	130	20	120	110	10
40-44	100	80	20	90	80	20
45-49	70	70	10	60	50	10
50-54	50	50	0	40	40	0
55-59	40	50	0	30	40	0
60-64	40	50	-10	30	40	0
65-69	40	30	10	30	30	0
70-74	30	20	10	30	20	10
75-79	30	30	10	30	20	10
80-84	40	40	0	30	30	0
85+	90	90	0	70	70	0
TOTAL	2,900	2,710	190	1,620	1,470	150

EMPLOYMENT RATES

A6.23 Employment rates have been estimated from information from the Annual Population Survey (accessed through NOMIS). The employment rates take account of the economic downturn and assume that underlying rates are as observed in 2006 with a decline to 2011 and then recovery (back to the 2006 position) by 2016 – rates are held constant after this time. The rates have however additionally been adjusted by JGC to take account of changes to pensionable age which for modelling purposes can be summarised as:

- The State Pension age for women born on or after 6 April 1950 will increase gradually to 65 between 2010 and 2020;
- From 6 April 2020 the State Pension age will be 65 for both men and women; and
- State Pension age for men and women will increase from 65 to 66 between April 2024 and April 2026.

A6.24 To get age specific employment rates we have also drawn on 2001 Census data – this splits information down into male/female and for five year age groups up to 70-74 (also noting that the youngest age group is actually a four year age group from 16 to 19). This information has been updated to reflect overall employment rates in 2006 and additionally takes account of the fact that in all areas employment rates for females have risen more than for males.

A6.25 The tables below shows estimated employment rates by age and sex for each individual local authority for six time periods from 2006 to 2031. Whilst it is possible to calculate an overall employment rate for any individual year (the employment rate being the proportion of people aged 16-64 who are working) it should be noted that this will be variable depending on the projection scenario being run. The tables therefore present this data for our main trend-based projection.

Figure A6.52: Modelled and projected employment rates in Blaby 2006 to 2031

Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	61.1%	60.7%	58.6%	59.4%	61.1%	60.7%	61.1%	60.7%	61.1%	60.7%	61.1%	60.7%
20-24	88.0%	87.4%	84.5%	85.6%	88.0%	87.4%	88.0%	87.4%	88.0%	87.4%	88.0%	87.4%
25-29	94.4%	80.3%	90.7%	78.7%	94.4%	80.3%	94.4%	80.3%	94.4%	80.3%	94.4%	80.3%
30-34	97.1%	78.2%	93.2%	76.6%	97.1%	78.2%	97.1%	78.2%	97.1%	78.2%	97.1%	78.2%
35-39	95.2%	87.2%	91.4%	85.4%	95.2%	87.2%	95.2%	87.2%	95.2%	87.2%	95.2%	87.2%
40-44	94.0%	89.7%	90.3%	87.9%	94.0%	89.7%	94.0%	89.7%	94.0%	89.7%	94.0%	89.7%
45-49	92.3%	89.8%	88.6%	88.0%	92.3%	89.8%	92.3%	89.8%	92.3%	89.8%	92.3%	89.8%
50-54	86.5%	87.2%	83.1%	85.5%	86.5%	87.2%	86.5%	87.2%	86.5%	87.2%	86.5%	87.2%
55-59	80.3%	71.5%	77.1%	70.1%	80.3%	71.5%	80.3%	71.5%	80.3%	71.5%	80.3%	71.5%
60-64	57.0%	30.2%	54.7%	32.5%	57.0%	42.2%	57.0%	45.2%	57.0%	45.2%	57.0%	45.2%
65-69	27.0%	12.6%	25.9%	12.4%	27.0%	12.6%	27.0%	12.6%	29.0%	14.8%	31.0%	17.0%
70-74	10.5%	4.6%	10.0%	4.5%	10.5%	4.6%	10.5%	4.6%	10.5%	4.6%	10.5%	4.6%
Emp. rate	81.5%		78.7%		82.1%		81.7%		81.2%		81.5%	

Figure A6.53: Modelled and projected employment rates in Charnwood 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	54.3%	42.4%	52.1%	41.5%	54.3%	42.4%	54.3%	42.4%	54.3%	42.4%	54.3%	42.4%
20-24	72.0%	64.2%	69.1%	62.9%	72.0%	64.2%	72.0%	64.2%	72.0%	64.2%	72.0%	64.2%
25-29	84.9%	86.0%	81.5%	84.3%	84.9%	86.0%	84.9%	86.0%	84.9%	86.0%	84.9%	86.0%
30-34	92.4%	86.9%	88.7%	85.2%	92.4%	86.9%	92.4%	86.9%	92.4%	86.9%	92.4%	86.9%
35-39	94.0%	78.8%	90.2%	77.3%	94.0%	78.8%	94.0%	78.8%	94.0%	78.8%	94.0%	78.8%
40-44	93.7%	83.6%	90.0%	81.9%	93.7%	83.6%	93.7%	83.6%	93.7%	83.6%	93.7%	83.6%
45-49	93.2%	83.2%	89.5%	81.6%	93.2%	83.2%	93.2%	83.2%	93.2%	83.2%	93.2%	83.2%
50-54	92.9%	85.9%	89.2%	84.1%	92.9%	85.9%	92.9%	85.9%	92.9%	85.9%	92.9%	85.9%
55-59	84.5%	69.3%	81.2%	67.9%	84.5%	69.3%	84.5%	69.3%	84.5%	69.3%	84.5%	69.3%
60-64	58.8%	28.9%	56.5%	31.2%	58.8%	40.4%	58.8%	43.3%	58.8%	43.3%	58.8%	43.3%
65-69	25.4%	18.8%	24.3%	18.4%	25.4%	18.8%	25.4%	18.8%	27.3%	22.0%	29.2%	25.2%
70-74	14.3%	9.5%	13.7%	9.3%	14.3%	9.5%	14.3%	9.5%	14.3%	9.5%	14.3%	9.5%
Emp. rate	76.4%		73.7%		77.4%		77.6%		77.1%		77.2%	

Figure A6.54: Modelled and projected employment rates in Harborough 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	58.7%	57.4%	56.3%	56.2%	58.7%	57.4%	58.7%	57.4%	58.7%	57.4%	58.7%	57.4%
20-24	78.1%	86.1%	75.0%	84.4%	78.1%	86.1%	78.1%	86.1%	78.1%	86.1%	78.1%	86.1%
25-29	97.7%	81.5%	93.8%	79.9%	97.7%	81.5%	97.7%	81.5%	97.7%	81.5%	97.7%	81.5%
30-34	99.6%	78.4%	95.6%	76.8%	99.6%	78.4%	99.6%	78.4%	99.6%	78.4%	99.6%	78.4%
35-39	97.0%	75.8%	93.1%	74.3%	97.0%	75.8%	97.0%	75.8%	97.0%	75.8%	97.0%	75.8%
40-44	97.3%	80.9%	93.4%	79.3%	97.3%	80.9%	97.3%	80.9%	97.3%	80.9%	97.3%	80.9%
45-49	95.2%	81.9%	91.4%	80.2%	95.2%	81.9%	95.2%	81.9%	95.2%	81.9%	95.2%	81.9%
50-54	86.8%	82.6%	83.3%	81.0%	86.8%	82.6%	86.8%	82.6%	86.8%	82.6%	86.8%	82.6%
55-59	79.5%	66.5%	76.3%	65.1%	79.5%	66.5%	79.5%	66.5%	79.5%	66.5%	79.5%	66.5%
60-64	59.7%	32.6%	57.3%	35.1%	59.7%	45.5%	59.7%	48.8%	59.7%	48.8%	59.7%	48.8%
65-69	32.1%	24.3%	30.8%	23.9%	32.1%	24.3%	32.1%	24.3%	34.5%	28.6%	36.9%	32.8%
70-74	19.6%	11.1%	18.8%	10.9%	19.6%	11.1%	19.6%	11.1%	19.6%	11.1%	19.6%	11.1%
Emp. rate	79.2%		76.3%		79.4%		79.0%		78.3%		78.7%	

Figure A6.55: Modelled and projected employment rates in Hinckley & Bosworth 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	62.1%	57.9%	59.6%	56.7%	62.1%	57.9%	62.1%	57.9%	62.1%	57.9%	62.1%	57.9%
20-24	82.1%	68.6%	78.8%	67.2%	82.1%	68.6%	82.1%	68.6%	82.1%	68.6%	82.1%	68.6%
25-29	94.4%	77.8%	90.7%	76.2%	94.4%	77.8%	94.4%	77.8%	94.4%	77.8%	94.4%	77.8%
30-34	97.7%	75.4%	93.8%	73.9%	97.7%	75.4%	97.7%	75.4%	97.7%	75.4%	97.7%	75.4%
35-39	95.0%	78.5%	91.2%	77.0%	95.0%	78.5%	95.0%	78.5%	95.0%	78.5%	95.0%	78.5%
40-44	93.4%	83.1%	89.7%	81.4%	93.4%	83.1%	93.4%	83.1%	93.4%	83.1%	93.4%	83.1%
45-49	93.3%	83.5%	89.6%	81.8%	93.3%	83.5%	93.3%	83.5%	93.3%	83.5%	93.3%	83.5%
50-54	88.2%	83.3%	84.7%	81.7%	88.2%	83.3%	88.2%	83.3%	88.2%	83.3%	88.2%	83.3%
55-59	80.2%	68.5%	77.0%	67.1%	80.2%	68.5%	80.2%	68.5%	80.2%	68.5%	80.2%	68.5%
60-64	58.6%	26.2%	56.3%	28.2%	58.6%	36.6%	58.6%	39.2%	58.6%	39.2%	58.6%	39.2%
65-69	21.3%	8.7%	20.5%	8.5%	21.3%	8.7%	21.3%	8.7%	22.9%	10.2%	24.5%	11.7%
70-74	10.7%	3.2%	10.2%	3.2%	10.7%	3.2%	10.7%	3.2%	10.7%	3.2%	10.7%	3.2%
Emp. rate	78.2%		75.3%		78.6%		78.3%		77.6%		77.8%	

Figure A6.56: Modelled and projected employment rates in Leicester 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	32.2%	33.8%	30.9%	33.1%	32.2%	33.8%	32.2%	33.8%	32.2%	33.8%	32.2%	33.8%
20-24	64.0%	55.9%	61.5%	54.7%	64.0%	55.9%	64.0%	55.9%	64.0%	55.9%	64.0%	55.9%
25-29	81.6%	58.7%	78.3%	57.6%	81.6%	58.7%	81.6%	58.7%	81.6%	58.7%	81.6%	58.7%
30-34	83.7%	59.9%	80.3%	58.7%	83.7%	59.9%	83.7%	59.9%	83.7%	59.9%	83.7%	59.9%
35-39	84.7%	62.7%	81.3%	61.5%	84.7%	62.7%	84.7%	62.7%	84.7%	62.7%	84.7%	62.7%
40-44	83.9%	66.3%	80.5%	65.0%	83.9%	66.3%	83.9%	66.3%	83.9%	66.3%	83.9%	66.3%
45-49	81.8%	65.9%	78.6%	64.6%	81.8%	65.9%	81.8%	65.9%	81.8%	65.9%	81.8%	65.9%
50-54	85.8%	74.6%	82.4%	73.1%	85.8%	74.6%	85.8%	74.6%	85.8%	74.6%	85.8%	74.6%
55-59	76.0%	60.6%	73.0%	59.4%	76.0%	60.6%	76.0%	60.6%	76.0%	60.6%	76.0%	60.6%
60-64	52.0%	25.5%	49.9%	27.5%	52.0%	35.6%	52.0%	38.1%	52.0%	38.1%	52.0%	38.1%
65-69	16.5%	10.6%	15.8%	10.4%	16.5%	10.6%	16.5%	10.6%	17.7%	12.4%	19.0%	14.2%
70-74	8.5%	4.7%	8.2%	4.6%	8.5%	4.7%	8.5%	4.7%	8.5%	4.7%	8.5%	4.7%
Emp. rate	65.4%		63.7%		66.4%		66.4%		66.1%		66.1%	

Figure A6.57: Modelled and projected employment rates in Melton 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	53.1%	69.7%	51.0%	68.3%	53.1%	69.7%	53.1%	69.7%	53.1%	69.7%	53.1%	69.7%
20-24	85.9%	78.0%	82.4%	76.5%	85.9%	78.0%	85.9%	78.0%	85.9%	78.0%	85.9%	78.0%
25-29	98.4%	79.0%	94.5%	77.5%	98.4%	79.0%	98.4%	79.0%	98.4%	79.0%	98.4%	79.0%
30-34	100.0%	75.9%	96.0%	74.4%	100.0%	75.9%	100.0%	75.9%	100.0%	75.9%	100.0%	75.9%
35-39	97.4%	80.1%	93.5%	78.5%	97.4%	80.1%	97.4%	80.1%	97.4%	80.1%	97.4%	80.1%
40-44	97.4%	83.9%	93.5%	82.3%	97.4%	83.9%	97.4%	83.9%	97.4%	83.9%	97.4%	83.9%
45-49	96.8%	83.7%	92.9%	82.0%	96.8%	83.7%	96.8%	83.7%	96.8%	83.7%	96.8%	83.7%
50-54	92.8%	85.5%	89.0%	83.8%	92.8%	85.5%	92.8%	85.5%	92.8%	85.5%	92.8%	85.5%
55-59	82.1%	68.7%	78.8%	67.3%	82.1%	68.7%	82.1%	68.7%	82.1%	68.7%	82.1%	68.7%
60-64	58.1%	31.5%	55.8%	34.0%	58.1%	44.0%	58.1%	47.2%	58.1%	47.2%	58.1%	47.2%
65-69	47.6%	44.1%	45.7%	43.2%	47.6%	44.1%	47.6%	44.1%	51.2%	51.7%	54.8%	59.3%
70-74	18.3%	16.1%	17.5%	15.8%	18.3%	16.1%	18.3%	16.1%	18.3%	16.1%	18.3%	16.1%
Emp. rate	80.6%		77.7%		81.0%		80.5%		79.7%		80.0%	

Figure A6.58: Modelled and projected employment rates in North West Leicestershire 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	59.0%	59.8%	56.6%	58.6%	59.0%	59.8%	59.0%	59.8%	59.0%	59.8%	59.0%	59.8%
20-24	78.9%	71.2%	75.8%	69.8%	78.9%	71.2%	78.9%	71.2%	78.9%	71.2%	78.9%	71.2%
25-29	93.6%	85.1%	89.9%	83.4%	93.6%	85.1%	93.6%	85.1%	93.6%	85.1%	93.6%	85.1%
30-34	95.4%	82.0%	91.6%	80.4%	95.4%	82.0%	95.4%	82.0%	95.4%	82.0%	95.4%	82.0%
35-39	94.0%	80.9%	90.3%	79.3%	94.0%	80.9%	94.0%	80.9%	94.0%	80.9%	94.0%	80.9%
40-44	93.5%	85.2%	89.7%	83.5%	93.5%	85.2%	93.5%	85.2%	93.5%	85.2%	93.5%	85.2%
45-49	93.0%	84.3%	89.3%	82.6%	93.0%	84.3%	93.0%	84.3%	93.0%	84.3%	93.0%	84.3%
50-54	81.5%	81.2%	78.2%	79.5%	81.5%	81.2%	81.5%	81.2%	81.5%	81.2%	81.5%	81.2%
55-59	72.9%	62.7%	70.0%	61.4%	72.9%	62.7%	72.9%	62.7%	72.9%	62.7%	72.9%	62.7%
60-64	49.1%	26.8%	47.1%	28.9%	49.1%	37.4%	49.1%	40.1%	49.1%	40.1%	49.1%	40.1%
65-69	37.2%	35.3%	35.7%	34.6%	37.2%	35.3%	37.2%	35.3%	40.0%	41.5%	42.8%	47.5%
70-74	17.8%	14.5%	17.1%	14.2%	17.8%	14.5%	17.8%	14.5%	17.8%	14.5%	17.8%	14.5%
Emp. rate	77.5%		74.9%		78.0%		77.5%		76.8%		77.1%	

Figure A6.59: Modelled and projected employment rates in Oadby & Wigston 2006 to 2031												
Age group	2006		2011		2016		2021		2026		2031	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16-19	59.8%	44.3%	57.4%	43.4%	59.8%	44.3%	59.8%	44.3%	59.8%	44.3%	59.8%	44.3%
20-24	81.1%	84.7%	77.9%	83.0%	81.1%	84.7%	81.1%	84.7%	81.1%	84.7%	81.1%	84.7%
25-29	91.5%	75.9%	87.9%	74.4%	91.5%	75.9%	91.5%	75.9%	91.5%	75.9%	91.5%	75.9%
30-34	96.0%	73.6%	92.1%	72.1%	96.0%	73.6%	96.0%	73.6%	96.0%	73.6%	96.0%	73.6%
35-39	90.5%	81.1%	86.9%	79.5%	90.5%	81.1%	90.5%	81.1%	90.5%	81.1%	90.5%	81.1%
40-44	92.3%	84.8%	88.6%	83.1%	92.3%	84.8%	92.3%	84.8%	92.3%	84.8%	92.3%	84.8%
45-49	90.0%	85.0%	86.4%	83.3%	90.0%	85.0%	90.0%	85.0%	90.0%	85.0%	90.0%	85.0%
50-54	86.6%	84.8%	83.1%	83.1%	86.6%	84.8%	86.6%	84.8%	86.6%	84.8%	86.6%	84.8%
55-59	79.1%	70.0%	75.9%	68.6%	79.1%	70.0%	79.1%	70.0%	79.1%	70.0%	79.1%	70.0%
60-64	57.7%	31.2%	55.4%	33.6%	57.7%	43.5%	57.7%	46.6%	57.7%	46.6%	57.7%	46.6%
65-69	38.3%	20.4%	36.8%	20.0%	38.3%	20.4%	38.3%	20.4%	41.2%	23.9%	44.1%	27.4%
70-74	16.3%	10.0%	15.6%	9.8%	16.3%	10.0%	16.3%	10.0%	16.3%	10.0%	16.3%	10.0%
Emp. rate	77.1%		75.0%		78.3%		78.2%		77.9%		78.4%	

HEADSHIP RATES

A6.26 The final key piece of information that feeds into our projection modelling is headship rates. Headship rates can be described in their most simple terms as the number of people who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)). For the purposes of our analysis we have used data in the CLG 2008-base household projections, these take males to be the default HRP in cases where the household is headed by a couple.

A6.27 This approach is different to that taken in the Census where defining the HRP is based on economic activity and age (ahead of sex). For example, in a household with only one adult (e.g. a lone parent household) the HRP is taken as that person. In a household with more than one adult (e.g. a couple household) the HRP is chosen on the basis of their economic activity (in the priority order of full-time job, part-time job, unemployed, retired, other). If both (or all) people have the same economic activity, the HRP is defined as the elder of the two, or if they are the same age, the first member on the form.

A6.28 As discussed in the main report we have some concerns with the CLG's projected changes in headship rates – the fact that in some areas they go up and in others down – and have therefore modelled data on the basis of both the projected CLG figures and also with headship held constant at 2006 levels.

A6.29 Although we have used headship rates for each key five year time period the key ones will be those for the start (i.e. 2006) and the end (2031) of the projection and therefore below we have provided the data used for each of these dates. The information is split between males and females.

Figure A6.60: Headship rates used for analysis								
Age group	Blaby				Charnwood			
	2006		2031		2006		2031	
	Male	Female	Male	Female	Male	Female	Male	Female
15-19	0.7%	0.4%	0.9%	0.4%	1.3%	1.9%	1.3%	1.8%
20-24	16.2%	7.4%	15.5%	10.3%	23.4%	11.8%	25.5%	14.0%
25-29	64.4%	13.1%	60.5%	17.8%	62.0%	21.1%	60.0%	27.8%
30-34	83.8%	17.2%	80.6%	23.2%	82.6%	22.4%	81.8%	32.9%
35-39	90.7%	17.7%	89.1%	22.8%	89.0%	22.6%	88.0%	37.4%
40-44	92.6%	17.3%	92.4%	19.3%	93.5%	20.0%	95.2%	25.2%
45-49	93.5%	15.3%	93.2%	14.6%	94.3%	20.3%	94.2%	22.3%
50-54	95.3%	15.1%	92.1%	16.2%	95.1%	17.7%	93.4%	21.5%
55-59	97.5%	17.0%	96.1%	20.0%	97.1%	20.2%	96.0%	25.6%
60-64	98.0%	20.0%	96.2%	22.5%	98.2%	21.4%	97.5%	26.5%
65-69	98.2%	27.3%	97.7%	29.3%	98.6%	25.8%	98.6%	28.8%
70-74	97.9%	34.3%	97.5%	29.6%	98.2%	36.0%	98.1%	32.3%
75-79	96.9%	46.1%	97.1%	35.1%	97.2%	48.7%	97.5%	38.1%
80-84	94.5%	56.2%	95.7%	44.1%	93.4%	60.4%	95.5%	48.2%
85+	87.2%	60.1%	91.0%	53.0%	85.7%	61.4%	91.0%	54.6%

Figure A6.61: Headship rates used for analysis								
Age group	Harborough				Hinckley & Bosworth			
	2006		2031		2006		2031	
	Male	Female	Male	Female	Male	Female	Male	Female
15-19	1.2%	0.8%	1.3%	0.9%	1.7%	1.5%	1.9%	1.7%
20-24	18.9%	7.6%	18.0%	8.5%	21.9%	9.6%	21.1%	12.5%
25-29	61.0%	14.6%	57.5%	16.5%	62.8%	15.6%	58.5%	18.7%
30-34	82.7%	16.1%	79.5%	22.1%	83.4%	19.9%	82.3%	26.4%
35-39	88.9%	16.5%	87.0%	23.4%	89.8%	18.3%	89.6%	23.2%
40-44	92.1%	17.5%	93.2%	19.6%	91.2%	16.9%	91.7%	20.8%
45-49	93.4%	16.1%	92.6%	18.6%	92.7%	16.3%	89.6%	17.9%
50-54	94.8%	15.5%	94.0%	18.5%	96.3%	15.5%	94.1%	17.5%
55-59	96.0%	15.7%	93.9%	21.2%	97.6%	16.6%	95.8%	20.8%
60-64	98.5%	17.9%	98.7%	20.0%	98.0%	19.4%	95.7%	23.0%
65-69	98.6%	27.9%	97.9%	32.1%	98.1%	25.3%	96.0%	26.8%
70-74	97.8%	35.8%	97.5%	32.7%	98.2%	36.5%	97.3%	31.6%
75-79	96.3%	48.1%	96.1%	36.2%	97.4%	50.2%	97.7%	37.5%
80-84	90.6%	59.3%	92.9%	43.7%	96.0%	60.8%	97.7%	46.1%
85+	83.4%	58.2%	90.1%	52.3%	85.4%	63.7%	91.0%	55.2%

Figure A6.62: Headship rates used for analysis								
Age group	Leicester				Melton			
	2006		2031		2006		2031	
	Male	Female	Male	Female	Male	Female	Male	Female
15-19	4.8%	6.0%	5.2%	6.5%	2.5%	2.2%	2.5%	2.6%
20-24	33.4%	20.5%	35.8%	23.7%	21.6%	10.0%	20.1%	12.5%
25-29	52.8%	29.2%	51.1%	34.1%	64.4%	17.9%	61.2%	21.6%
30-34	67.9%	35.0%	67.6%	43.9%	83.2%	17.1%	81.4%	24.1%
35-39	84.0%	34.0%	86.5%	42.5%	90.4%	15.0%	91.1%	19.0%
40-44	86.8%	30.6%	89.9%	36.6%	91.5%	15.5%	89.2%	17.7%
45-49	88.6%	28.4%	88.7%	34.0%	93.4%	16.8%	92.7%	19.6%
50-54	92.0%	29.5%	89.8%	36.8%	95.1%	17.6%	93.3%	19.4%
55-59	93.4%	29.8%	93.1%	36.3%	97.9%	15.2%	97.2%	20.0%
60-64	94.6%	34.1%	95.0%	40.3%	97.8%	20.0%	97.4%	18.3%
65-69	95.9%	36.7%	96.6%	40.2%	98.3%	26.3%	98.3%	25.5%
70-74	96.6%	44.7%	97.6%	44.2%	97.3%	39.2%	97.5%	34.1%
75-79	94.8%	52.2%	95.8%	44.0%	97.0%	50.9%	97.4%	40.1%
80-84	91.9%	62.0%	94.1%	52.8%	94.9%	61.7%	97.6%	48.6%
85+	83.4%	64.9%	86.5%	59.8%	82.5%	60.3%	87.6%	55.5%

Figure A6.63: Headship rates used for analysis								
Age group	North West Leicestershire				Oadby & Wigston			
	2006		2031		2006		2031	
	Male	Female	Male	Female	Male	Female	Male	Female
15-19	1.4%	1.6%	1.5%	1.8%	1.7%	1.2%	2.1%	1.8%
20-24	23.5%	11.7%	22.2%	15.3%	17.6%	9.3%	17.8%	12.1%
25-29	66.8%	16.3%	64.4%	20.8%	54.2%	17.7%	48.0%	21.7%
30-34	85.0%	17.9%	84.2%	24.1%	81.8%	23.5%	81.9%	30.7%
35-39	88.6%	16.8%	87.7%	15.3%	86.1%	20.4%	86.8%	19.6%
40-44	91.6%	17.2%	90.6%	14.0%	91.9%	22.5%	93.4%	29.5%
45-49	93.4%	16.7%	93.0%	17.0%	93.1%	21.9%	95.3%	25.5%
50-54	95.7%	15.1%	94.2%	16.7%	94.9%	19.4%	90.5%	24.1%
55-59	97.3%	18.0%	96.9%	21.3%	96.7%	17.6%	94.2%	22.3%
60-64	97.4%	20.9%	96.9%	21.1%	98.4%	23.6%	98.3%	25.3%
65-69	98.1%	26.4%	97.8%	23.4%	98.9%	29.0%	99.2%	31.3%
70-74	97.4%	39.1%	97.8%	34.4%	98.6%	36.7%	98.4%	33.5%
75-79	97.0%	51.6%	97.3%	39.0%	96.6%	50.5%	97.3%	38.9%
80-84	92.3%	62.7%	94.1%	51.1%	95.9%	56.6%	97.4%	45.6%
85+	83.4%	64.4%	88.7%	55.4%	81.6%	56.7%	87.0%	49.8%