

4 Understanding Historical and Future Drivers of Population / Household Change

- 4.1 The analysis in the following section (section 5) presents a series of scenarios of population and household change in order to identify alternative trajectories of growth in the authority. Prior to this, however, analysis examining the way in which the drivers of the housing market have varied historically and how they are projected to change in the future is considered within this section.

Demographic Drivers

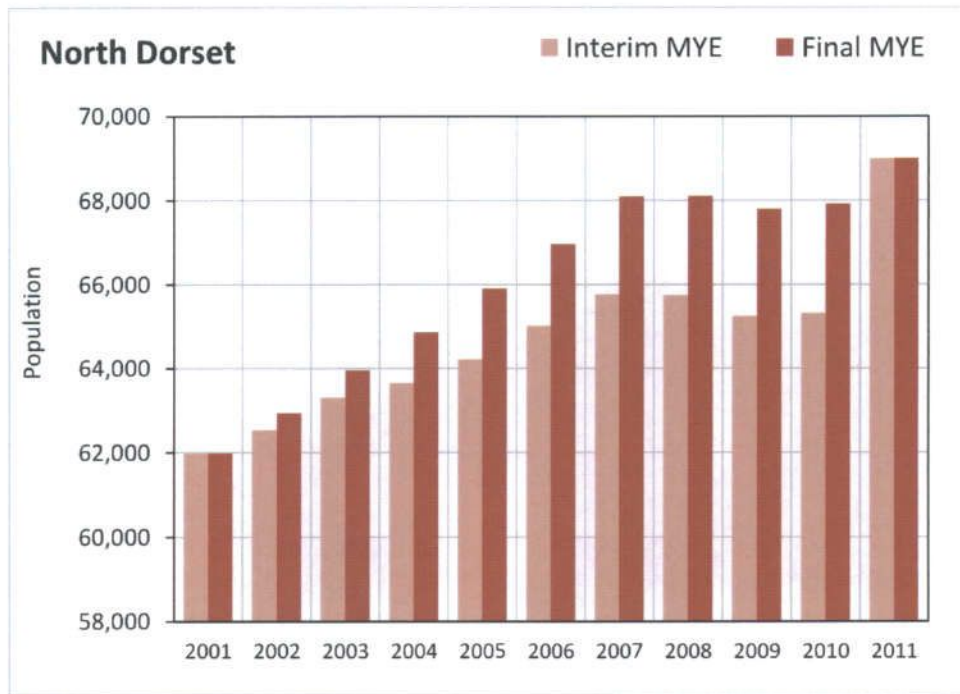
Population

Historic Population Change

- 4.2 The release of the 2011 Census data forms an important base point from which to understand population change in the authority. The ONS has used the Census data to produce a Mid-Year Estimate for 2011. This shows that the population of North Dorset has grown fairly considerably over the last ten years, with an additional 6,678 people recorded equating to a 10.8% increase between 2001 and 2011. The population of North Dorset, as recorded by the Census, was recorded as 68,583 in 2011.
- 4.3 As a result of the Census results in April 2013 ONS released its 'recalibrated' time-series of mid-year population estimates for the 2002 – 2010 period²⁹. These factor in the 2011 Census statistics and have recalculated the components of change (specifically international migration) that have driven local population growth between the 2001 and 2011 Census dates.
- 4.4 In addition this new dataset represents the recalibration of the 'components of change' to ensure the correct transition of the age profile of the population over the 2001 – 2011 decade, taking into account births, deaths, internal migration and international migration.
- 4.5 For North Dorset, the 2011 Census population total proved to be considerably higher than the trajectory of growth suggested by the previous ONS published mid-year-estimates. For this reason the revised mid-year estimates deviate by a notable amount from the original data with the difference increasing over time. This is shown in the following chart.

²⁹ ONS (2013) 'Methods used to revise the sub-national population estimates for mid-2002 to mid-2010

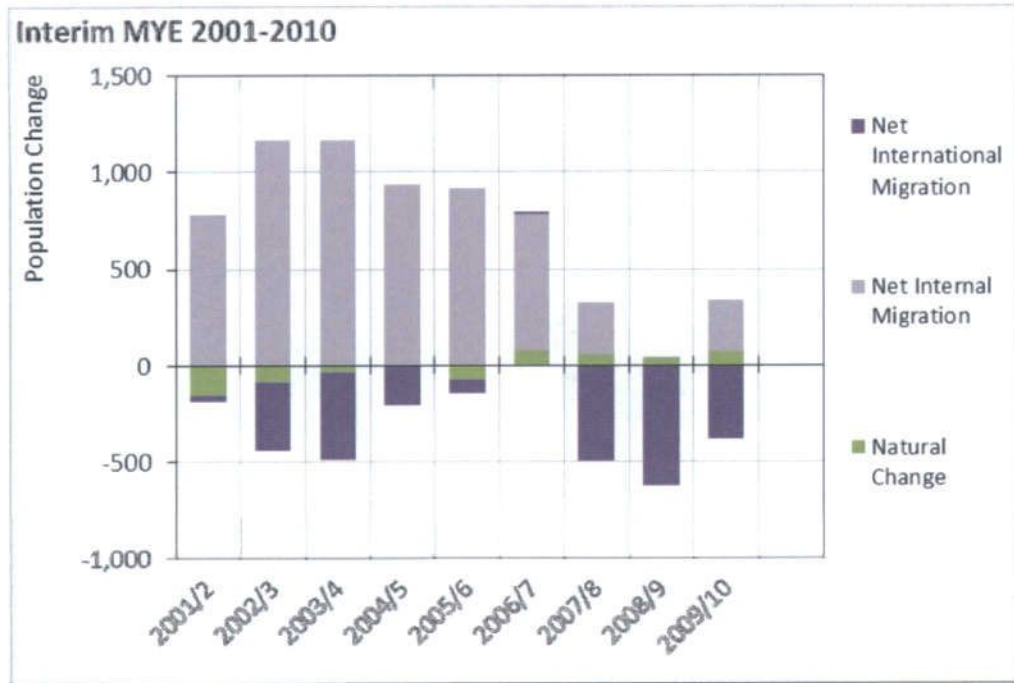
Figure 4.1: North Dorset – mid-year population estimate revisions



Source: ONS, 2013

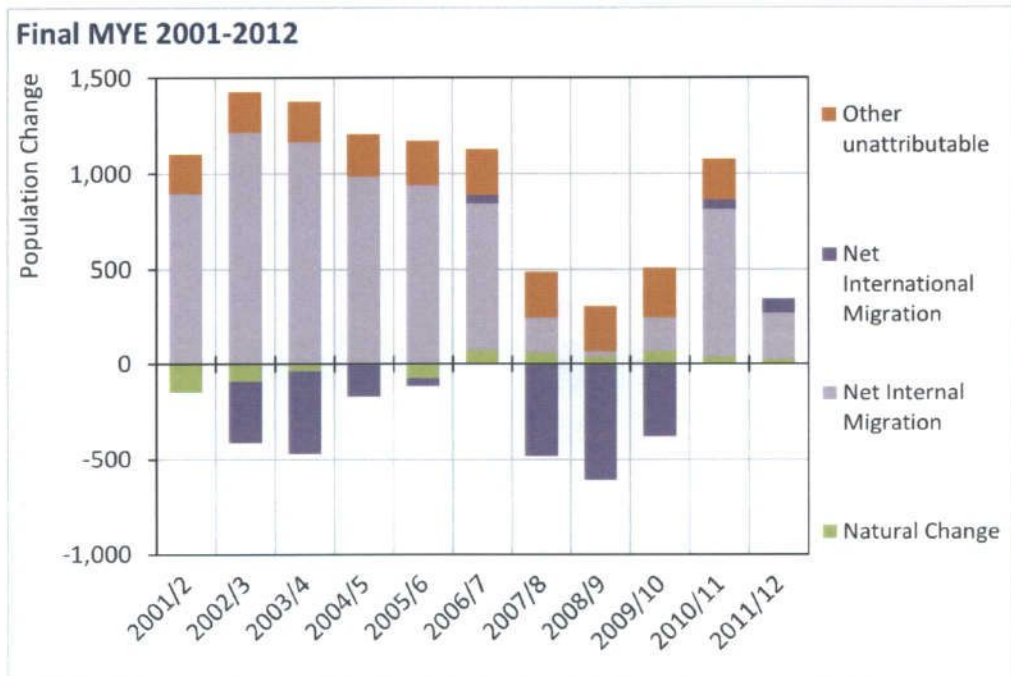
- 4.6 Between successive censuses, births and deaths are accurately recorded in vital statistics registers and provide the most robust measure of 'natural change' (the difference between births and deaths) in a geographical area. Internal migration data are derived from GP registers, providing an accurate representation of inter-area flows, albeit with some issues with regards to potential under-registration in certain age-groups (young males, in particular). International migration is the most difficult component to estimate with confidence.
- 4.7 On the assumption that births, deaths and internal migration have been robustly measured (and that the 2011 Census provided a robust population count for the authority), it is reasonable to assume that the 'adjustment' that resulted from the mid-year estimate revisions is predominantly associated with the mis-estimation of international migration; the balance between immigration and emigration flows to and from North Dorset.
- 4.8 The ONS has not explicitly assigned the mid-year estimate to international migration. Instead it has identified an additional 'other unattributable' component, suggesting it has not been able to accurately identify the source of the 2001-2011 under-count. The following charts illustrate the before and after components of change for North Dorset derived from two ONS datasets.

Figure 4.2: Components of change – old mid-year estimates



Source: ONS, 2013

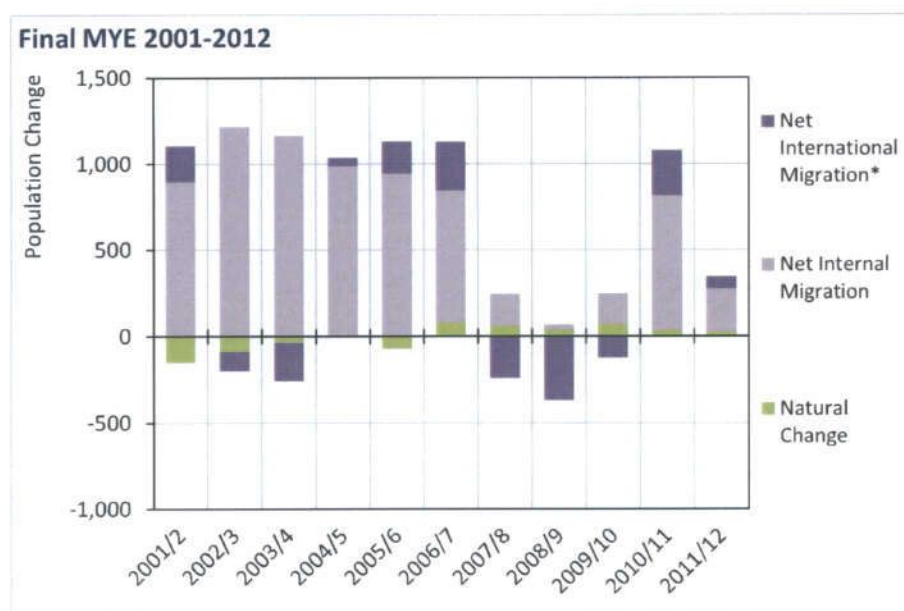
Figure 4.3: Components of change – revised mid-year estimates



Source: ONS, 2013 / Edge Analytics, 2013

- 4.9 It is evident that the result of the recalibration is that birth and death totals (and therefore natural change) remain largely unchanged. Small changes to internal migration impacts are evident but not significant.
- 4.10 On the basis of the above the forecasting analysis presented in this report assumes that the 'other unattributable' component of change is most likely associated with international migration. An alternative argument might be that the 2001 Census 'under-counted' the authority's population and the 2011 Census has 'over-counted' the population, but this is unlikely and difficult to verify.
- 4.11 Assuming that mis-estimation of international migration is the main reason for the 2011 Census adjustment, the components of change which have determined North Dorset's population growth since 2001 are presented in the following chart. The illustration includes the very latest evidence from the 2012 mid-year population and its estimated components of change for the year 2011/12.

Figure 4.4: Components of Change – North Dorset Edge Analytics Adjustment



Source: Edge Analytics, 2013

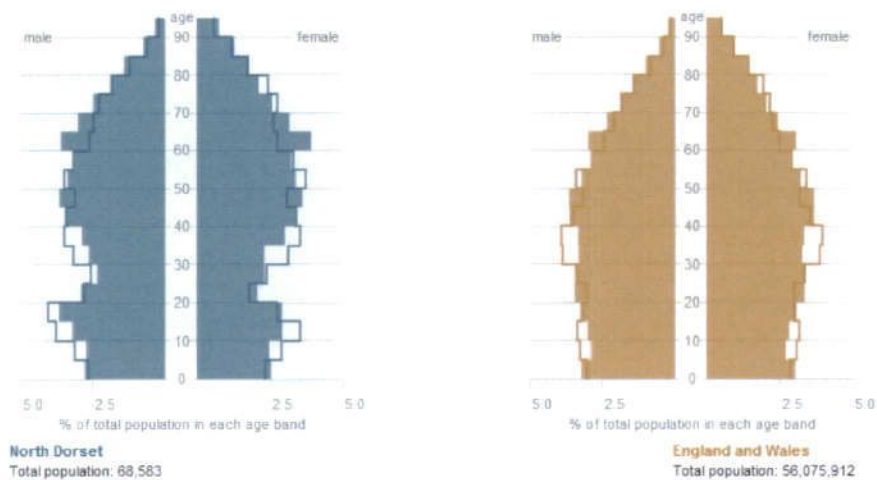
- 4.12 In terms of natural change this chart indicates that this has had a limited role in driving population change in the authority over the ten years, although it is important to recognise that this has moved from a negative driver of change to a positive factor from 2006/07 onwards.
- 4.13 Migration has evidently been the dominant factor determining the scale of population change in North Dorset. Looking at the ten year period the first six years all saw consistently high levels of net internal migration, 1,000 persons or thereabout year on year. From 2007/08 onwards the authority has seen considerably lower levels of migration with only 2010/11 estimated to have seen a level of growth which represents a return to these historically stronger levels of migration. This lower level of migration

should be considered in the context of both policy 'constraints' in the form of the SPD and associated with this, at least in part, development rates.

- 4.14 International migration has played a more varied role. Whilst the previous ONS estimates suggested that the net effect had largely been negative (i.e. a net flow out) the reattributing of this component in the revised dataset suggests a changing picture. Between 2004/05 – 2007/08 the net flow was positive, with this reversing over the following three years to 2009/10. The last two years appears to have seen a return to a positive flow. Significantly throughout the period considered the component has consistently played a limited role.
- 4.15 The 2011 Census also provides a useful resource for examining how the age profile of the population has changed since 2001. The following charts contrast the population age profile of North Dorset against that of England and Wales as well as showing how the profile has changed between 2001 and 2011.

Figure 4.5: 2011 Census: Population age profile estimates for North Dorset and England and Wales (outlines show 2001)

2011 Census: population estimates for England and Wales (outlines show 2001)



Source: 2011 Census, 2001 Mid-Year Population Estimates. Graphic by ONS Data Visualisation Centre

- 4.16 The left-hand chart clearly illustrate that the population of North Dorset has aged over the 10 year period between the last two Censuses. The proportion of people aged 60+ has increased over this period and counter to this the proportion aged under 20 has fallen.
- 4.17 The chart also shows a comparatively small working age population of those aged between 25 and 40 and a high proportion of those aged 40 – 60. This will, over the plan period, have an impact on the size of the working age population without the impact of migration.

- 4.18 The comparatively small proportion of people aged 20 – 40 in North Dorset is illustrated when compared against the national average which shows a more even proportionate split across the working age populations.
- 4.19 The ageing nature of the population is recognised within the Core Strategy as a key challenge facing the district. Reference is made to the Dorset Sustainable Community Strategy 2010-2020 which identifies an ageing population, compounded by established out-migration of younger people³⁰.

Exploring Migration

- 4.20 The previous analysis has highlighted the dominant role that migration has played in driving the population growth of the authority over recent years. It is therefore important to consider in more detail the spatial aspect of these migration flows and the age profile of migrants. These are considered in turn within this section.
- 4.21 Internal migration flows can be profiled through the application of data from the Patient Register Data System (PRDS). This analyses migration based on GP registration, and provides an up-to-date insight into movement patterns at a local authority level.
- 4.22 The table below presents the top ten inflows and outflows for North Dorset, measured as an average of gross flows over the period 2001/02 to 2010/11.

Figure 4.6: Average Gross Migration Flows 2001/02 – 2010/11

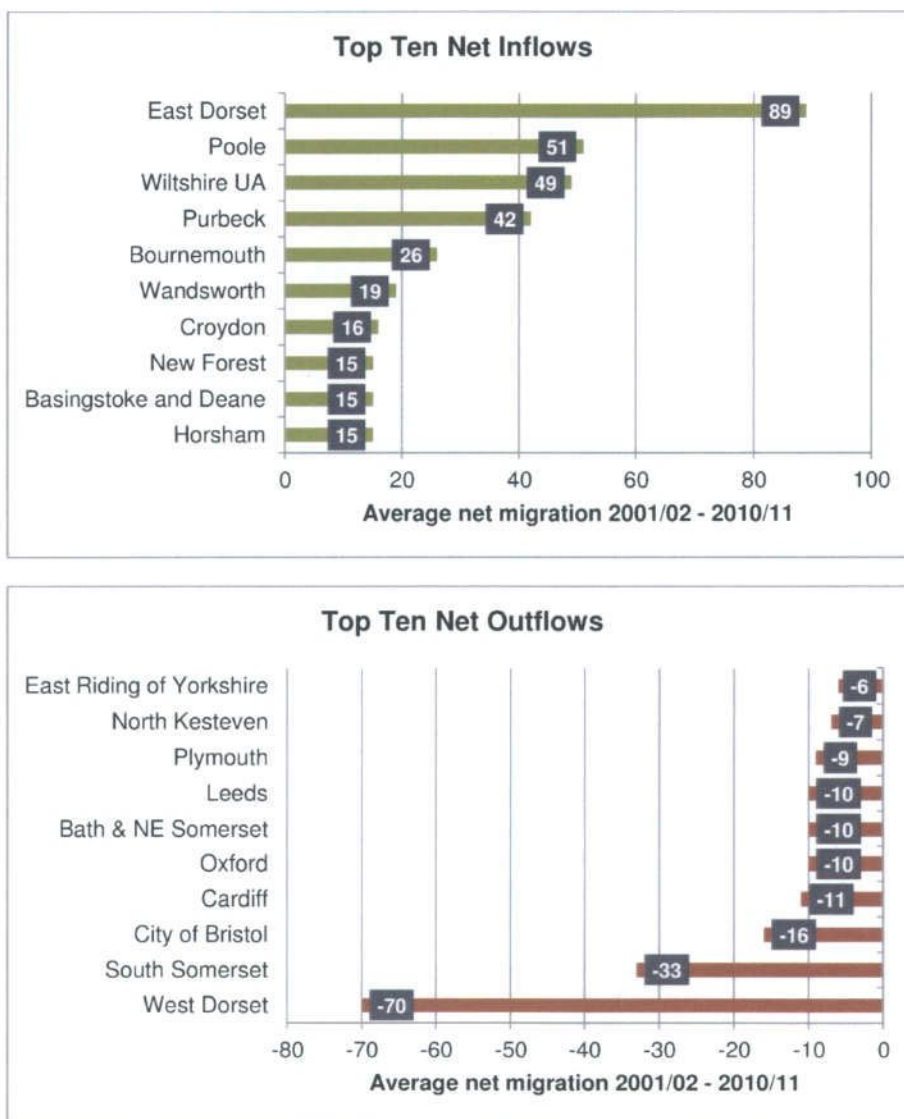
Top Ten Inflows		Top Ten Outflows	
Authority	Average	Authority	Average
Wiltshire UA	497	Wiltshire UA	448
South Somerset	261	West Dorset	308
East Dorset	258	South Somerset	294
West Dorset	238	Poole	172
Poole	223	East Dorset	169
Bournemouth	152	Bournemouth	126
Purbeck	127	Purbeck	85
New Forest	80	New Forest	65
Cornwall UA	58	Cornwall UA	59
Mendip	54	Weymouth and Portland	53

Source: PRDS, 2013; ONS, 2013

³⁰ Dorset Strategic Partnership (2010) Dorset Sustainable Community Strategy 2010-2020

- 4.23 As shown, the strongest migration relationship is with Wiltshire, to the north, while there are also strong relationships with the neighbouring authorities of South Somerset, West Dorset and East Dorset, and there are also evident flows further afield to the larger urban centres of Poole and Bournemouth. Overall, it is clear that migration flows are highly localised across the HMA area.
- 4.24 While gross flows provide an indication of the scale of the migratory relationship, calculation of net flows reveals the prevalent direction of travel. This is shown in the charts below.

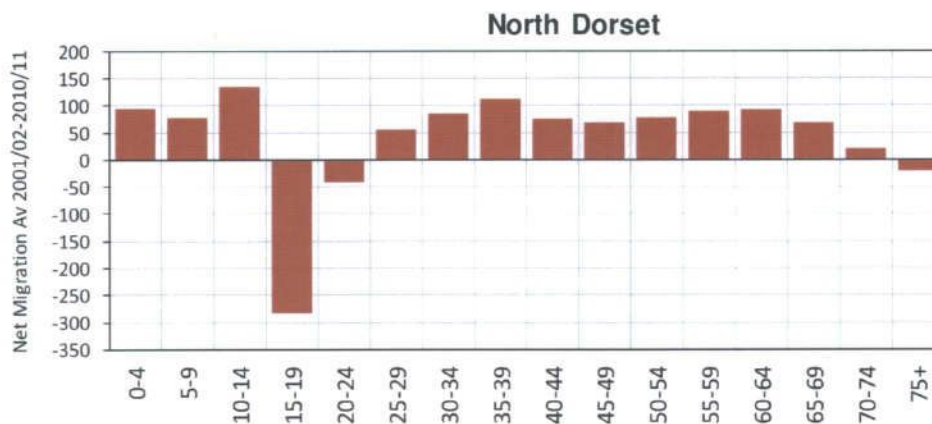
Figure 4.7: Average Net Migration 2001/02 – 2010/11



Source: PRDS, 2013; ONS, 2013

- 4.25 As shown, the strongest net movements is from East Dorset into North Dorset, while there is also an evidently high flow from North Dorset to West Dorset. Overall, this indicates that there are established westerly migration flows, and this is further reinforced with high net inflows from Poole, Purbeck and Wiltshire. The identification of net outflows to Oxford and Leeds also hints at outward migration associated with higher education.
- 4.26 Indeed, to reinforce this point, it is beneficial to assess the age profile of migrants. This is presented in the graph below, and shows that there is net outmigration of those aged 15 to 24. There is, though, net inward migration in all other age groups, with the exception of those aged 75 and over. This migration profile suggests a relatively healthy dynamic in terms of the changing age profile of the population, with strong inward migration of working age residents, the continuation of this pattern is reliant on the delivery of a sufficient level of housing to enable this historical pattern of migration.

Figure 4.8: Net Migration 2001/02 – 2010/11 – Age Profile of Migrants



Source: PRDS, 2013; ONS, 2013

Households, Dwellings and Occupancy

- 4.27 The increase in the population of North Dorset has been reflected in an increase in the number of households. The Census indicates that the authority has seen a growth of approximately 3,400 households between the two census years, 2001 and 2011, equivalent to a growth of 13.6%. This level of growth is broadly comparable to that seen over the preceding ten year period between 1991 and 2001, where there was a growth of approximately 3,900 households. It is evident that North Dorset has consistently seen household growth, although as highlighted earlier in this section the rate of formation and population growth fell notably against this longer-term trend over more recent years.
- 4.28 Over the last ten years the average household size appears to have fallen marginally. In 2001 the average household size was approximately 2.30, with this changing to approximately 2.29 in 2011. This is comparable to the regional average, but smaller than the national average.

- 4.29 Examining levels of households against the numbers of dwellings suggests a vacancy rate of approximately 5.7%. This is marginally lower than the regional average but higher than the average for England. This also represents an increase compared to 2001, where the rate was 4.7%. Second home ownership rates over this time period represents a factor in this level of empty properties both in North Dorset and across the South West.

Economic Signals

- 4.30 The link between housing and the economy has long been established as an important consideration in terms of creating flexible long-term policy. As identified in section 3 the evidence underpinning the RS housing requirements considered the relationship between housing and employment growth.
- 4.31 It is evident that a similar aspiration underpins the NPPF as set out in section 2. The UK's current emergence from a sustained period of economic downturn has meant that further weight has been given to this issue with the provision of infrastructure, including housing, considered as key to ensuring that economic growth potential is realised.
- 4.32 The NPPG, as summarised in section 2, reflects the key 'test' to be applied in the consideration of the requirement for housing in an area to take account of economic signals and in particular employment trends:

"Plan makers should make an assessment of the likely growth in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area... Where the supply of working age population (labour force supply) is less than the projected job growth, this will result in unsustainable commuting patterns and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider increasing their housing numbers to address these problems."

The Labour-Force

- 4.33 The demographic data in this section has identified that North Dorset has seen an ageing of its population over the last ten years. Equally the proportion of the working age population aged between 40 and 60 is considerable. Without changes to migration patterns, including the retention of those of younger working age and the attraction of new working age persons, this will lead to the reduction in the overall size of the labour-force.
- 4.34 Alongside this long term projection of a changing labour-force supply it is important to consider the make-up of the current labour-force further.
- 4.35 The sustained period of economic downturn following the credit crunch in 2007/08 has had a marked impact on the operation of the labour-force. This section considers the 'shape' of the local labour-force in order to understand the potential pool of existing unrealised labour within the population as of 2012/2013.

Figure 4.9: Unemployment Rate – aged 16+

Date	Total Unemployed	Economically Active	Unemployment Rate
2007/08	700	29,300	2.3%
2008/09	1,200	29,700	4.0%
2009/10	1,600	30,200	5.2%
2010/11	1,900	32,600	6.0%
2011/12	800	28,900	2.8%
2012/13	800	30,500	2.8%
Average	1,167	30,200	3.9%

Source: NOMIS, 2013

- 4.36 As shown, the unemployment rate has been variable over the period analysed, with the impact of the economic downturn particularly apparent in an increase in unemployment over the period 2008/09 to 2010/11, peaking in the latter year at 6%. In recent years, however, it is evident that the unemployment rate has improved, falling to its lowest level since 2007/08.
- 4.37 It is also important to consider the economically inactive population, in order to understand prevalent reasons for inactivity while also establishing how many would like to work. Figures are presented in the table below for the most recent available dataset, covering Annual Population Survey responses received between July 2012 and June 2013. An average figure is also calculated over the period 2007/08 to 2012/13, recognising the volatile nature of economic inactivity. Percentages are shown as a proportion of the economically inactive population.

Figure 4.10: Economically Inactive Population

Reason	2012/13		Average 2007/08 – 2012/13	
	Total	%	Total	%
Student	1,400	30.0%	1,367	19.4%
Looking after family/home	1,000	22.0%	1,383	19.7%
Temporary sick				
Long-term sick	1,400	29.8%	1,833	26.1%
Discouraged				
Retired	500	10.7%	1,617	23.0%
Other			1,100	15.6%
Want a job	1,800	37.1%	1,733	24.6%
Do not want a job	3,000	62.9%	5,317	75.6%

Source: NOMIS, 2013

- 4.38 As shown, for the most recent release, the main reason for economic inactivity is student status, closely followed by long-term sickness. When analysed over a longer period of time, however, long-term sickness emerges as the main reason for economic inactivity, with retirement also a key factor.
- 4.39 Notably, this analysis over a longer period of time indicates that around one in four economically inactive people want a job. Interestingly, this figure has increased to 37% in the most recent data release, suggested that 1,800 economically inactive people would like a job. This has the potential to represent a 'latent' labour-force to absorb future growth in jobs. Evidently, however, the capacity of this workforce to obtain employment will be dependent upon the matching up of skills and job opportunities as well as a number of other factors. Equally it is important to recognise that throughout the time period considered there has continued to be a significant number of people classified as economically inactive and 'wanting a job', this includes the more buoyant economic period seen prior to recession. On this basis it is important to acknowledge that the labour-force in the authority will continue to include an element of unrealised 'latent labour'.

Functional Economic Linkages

- 4.40 Further to the migration patterns analysed earlier in this section, it is also beneficial to establish prevalent commuting trends in North Dorset to establish the functional economic linkages the authority shares with other areas. This can be done using data from the Annual Population Survey covering 2011, which remains the most up-to-date source of commuting information. The table below presents the top ten places of work for residents of North Dorset, and also shows where most people who work in the authority live.

Figure 4.11: Commuting Trends 2011

Live in North Dorset		Work in North Dorset	
Place of Work	Total	Place of Residence	Total
North Dorset	22,294	North Dorset	22,294
South Somerset	1,544	Wiltshire	1,262
Wiltshire	1,518	South Somerset	911
Poole	1,439	West Dorset	805
East Dorset	792	Poole	799
West Dorset	735	East Dorset	776
Purbeck	519	Bournemouth	403
Test Valley	377	Test Valley	401
Torfaen	212	Ipswich	367
Winchester	205	Hart	363

Source: Annual Population Survey, 2011

- 4.41 As the table shows, around 22,300 people live and work in North Dorset, which equates to around three quarters of the total number of people who work in the authority. Similarly, around 75% of people who live in North Dorset also work in the authority, indicating a relatively contained workforce.
- 4.42 However, some residents do travel to work outside of the authority, with South Somerset, Wiltshire and Poole the most prominent destinations. There are, though, also flows of people from these authorities to work in North Dorset, although the lower numbers indicates that there is a net outflow of commuters to these destinations. Overall, however, it is evident that commuting flows are relatively localised with regards to surrounding authorities, supporting the earlier identification of an important HMA geography.

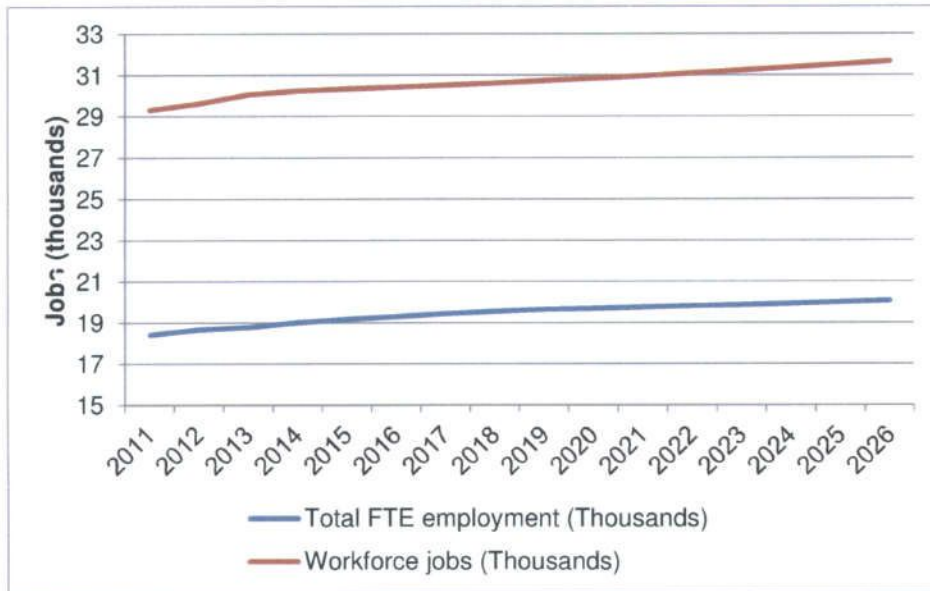
Future Employment Growth

- 4.43 Analysis of data published by Experian of historic job change indicates that North Dorset has been successful in generating new employment opportunities. The data suggests that between 2001 and 2011 there was a growth of approximately 3,500 workforce jobs. Interestingly considering the annual change over this period suggests a comparatively steady growth to 2007/08 with a small decline thereafter and a return to positive growth in 2011.
- 4.44 Analysis of the same data source with regards to full time equivalent (FTE) employment indicates a more mixed picture. Again a general growth trend is shown with an increase of 870 jobs evidenced over the ten years. However, a strong growth to 2008, 3,660 additional FTE jobs, is offset by a more significant reduction in FTE jobs to 2011. This

reflects the significant economic impact of the national recession and subsequent economic downturn on employment opportunities.

- 4.45 The latest December 2013 Experian forecasts show a projected growth in the numbers in employment in North Dorset over the plan period. The following chart indicates the growth trajectory for both workforce employment and FTE.

Figure 4.12: North Dorset Employment Forecast 2011 – 2026



Source: Experian, December 2013

- 4.46 A sustained growth in employment is forecast with workforce employment projected to grow by 2,360 over the period 2011 – 2026 (an 8.1% growth).
- 4.47 The Supporting Economic Development Background Paper produced by the Council appears to enforce these levels of job growth citing:

“Further more detailed work was undertaken by Dorset County Council (DCC), which suggested that about 3,300 jobs might be required in North Dorset by 2026. In addition, further work on Gillingham, which recognised the town’s potential for economic growth, suggested that a ‘supply-led’ approach could generate as many as 2,500 additional jobs in the town by 2026” (pg 14)

- 4.48 Whilst the Draft Local Plan is less specific with regards to the ambition to expand the local economy it does highlight the importance of the economy in the area in its vision, identifying that North Dorset will:

“have a more robust and prosperous economy (including sustainable tourism) with high quality jobs and skills, focused in locations that best support the District’s growing population” (pg 21)

- 4.49 This reinforces the ambition to attract business investment and the diversification of the economy of the authority which forms an important consideration in balancing the evidence of a potentially falling labour-force and a relatively low level of planned provision for new housing.
- 4.50 The Local Plan cites Appendix A of the Bournemouth, Dorset and Poole Workspace Study (2012), which outlines a growth scenario which expects full-time equivalent (FTE) employment to grow by around 0.8% per annum in North Dorset over the period from 2011 to 2031, which translates to a need to plan for an additional 4,400 FTE jobs in the authority. Broadly, approximately two thirds of employment growth is expected in the first decade of this period, and on this basis, the Local Plan estimates that approximately 3,630 FTE jobs will be required during the plan period of 2011 to 2026, with a further requirement for 770 FTE jobs between 2026 and 2031.

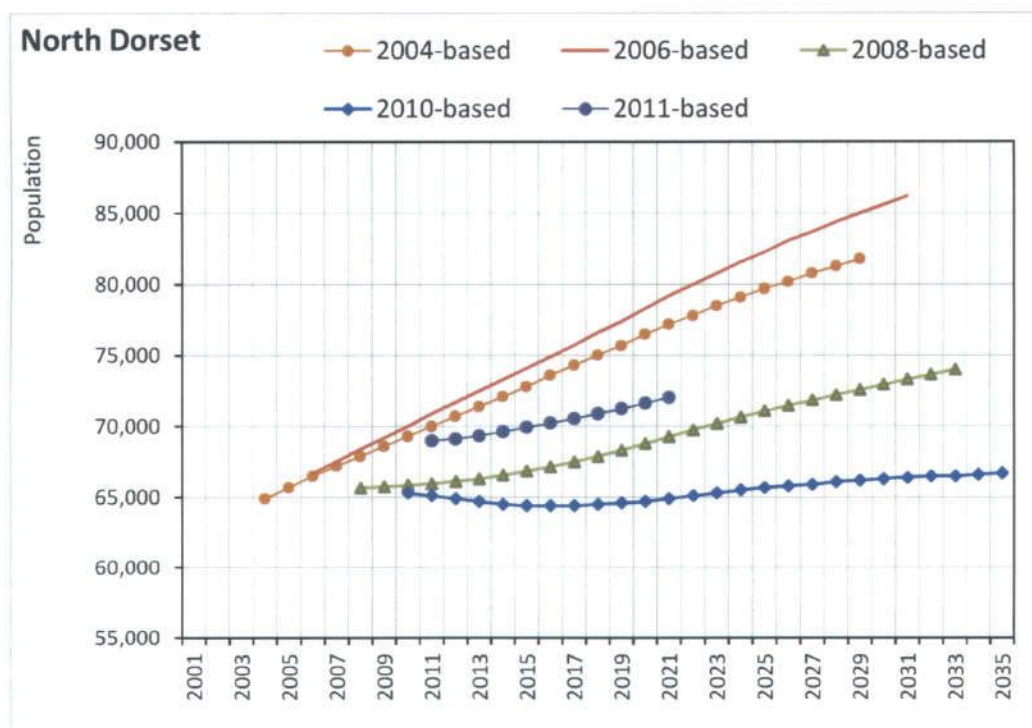
5 North Dorset Population and Household Projections

- 5.1 Within this section we present a number of scenarios of projected population and household change. These scenarios are intended to test and evaluate the impact of different assumptions around demographic, economic and development change over the plan period.
- 5.2 The modelling takes account of the assessment of these drivers of change presented in the preceding section. Initially a series of population projections are presented. These are then translated into household projections using two alternative headship rate assumptions derived from the 2008 SNHP and the Interim 2011 SNHP datasets.

Official Demographic Datasets

- 5.3 The official sub-national population projections (SNPP) produced every two years by the ONS show a wide range of outcomes for North Dorset, resulting from the application of different historical assumptions (on migration).

Figure 5.1: North Dorset Official Population Projections



Source: ONS, 2013

- 5.4 The 2004 and 2006 based projections suggested a higher level of population growth than more recent projections. The latest dataset, the 2011 SNPP, suggests a relatively flat level of population growth over its 10 year projection horizon. In considering these projections, it is important to recognise, as identified in section 3 that these are trend-

based in nature and therefore project forward on the basis of historic growth. This historic growth, as indicated in the preceding section is linked to a number of factors including the supply of housing, policy and economic and market factors.

- 5.5 In the context the latest ONS population projection dataset and the sister DCLG produced sub-national household projection dataset is considered in more detail below.

Interim 2011 Population / Household Projections

- 5.6 Recognising the wording of the Draft NPPG it is important to reference the latest Interim 2011 base Sub-National Household Projections which were released by the DCLG in April 2013. This dataset shows a projected growth of households per year over the period 2011 to 2021 of 175 households per annum in North Dorset.
- 5.7 It is important to recognise that this Interim SNHP uses the Interim 2011 SNPP dataset with regards projected population change and should therefore be considered in light of a number of methodological challenges.
- 5.8 The ONS published 'interim' 2011-based population projections were given an 'interim' status as they did not represent a full official update but were built to take into account available 2011 Census data. Importantly the projection uses assumptions from the 2010-based population projection to define its fertility, mortality and migration components of change, grafting these onto a 2011 population base. For this reason the 2011-based population projections are not considered by Edge Analytics to provide a suitably robust benchmark trend projection.
- 5.9 The projected household headship rates used in the Interim 2011 household model have been derived using 2011 Census data in combination with statistics from the Labour Force Survey. This represents an important update from the 2008 based datasets.
- 5.10 As with the population projections the rates under both datasets are built based on a trend analysis and therefore assume that what has happened previously will continue into the future.
- 5.11 This poses a challenge in terms of projecting forward. Evidently the period to 2008 represented a comparatively buoyant period in the housing market with derived rates therefore not taking account of the unprecedented economic conditions that have occurred since 2008. Equally given that these are unprecedented conditions also means that taking a 2011 base point has the inherent weakness of projecting forward the current market conditions / position over the long term.
- 5.12 This is reflected nationally with the household headship rates in the Interim 2011 SNHP projecting forward a reduced level of single person and family households with no children household formation. By contrast there is a notable projected increase in households comprised of a couple and one or more other adults with not dependent children and the miscellaneous 'Other' classification which includes multi-adult households. This reflects the affordability issues facing new emerging households, with many young adults forced to remain living with parents.

- 5.13 This issue is recognised through a report³¹ issued by Cambridge Centre for Housing & Planning Research (CCHPR) which concluded:

"There will be a temptation to modify the household numbers suggested by the projections to reflect the 2011 census but this should only be done where there is clear evidence that the changes are not the result of short-term fluctuations which are likely to come back to trend in the medium term. It follows that to make a case for lower household numbers than suggested by the 2008-based household projections local authorities would need to not only show that the actual household numbers in their area in 2011 were lower than projected but also to argue convincingly that the shortfall was not due to short term factors that would re-balance during the plan period. The 2011 census results are a snap shot taken after a period of severe economic and housing market volatility, it would be reasonable to expect the numbers of households that formed in the years running up to the census were significantly below the low term trend." (CCHPR, March 2013)

- 5.14 Given the interim status of the 2011 subnational household projection (SNHP) and the recognition that both this and the 2008 SNHP dataset are heavily impacted on by the market conditions of the historical period from which they are derived, headship rate assumptions are used from both datasets to provide a spectrum of associated household growth attributed to the alternative population projections presented in this section.

How many homes?

- 5.15 In order to assist authorities in understanding the need for housing the www.howmanyhomes.org website was launched in 2013 by a group of professional bodies, trade associations and charities with an interest in planning for housing. The data underpinning the modelling on the website uses the 2008 SNHP dataset and therefore suggests an alternative level of projected growth to the Interim projections considered above. This indicates a projected household growth between 2011 and 2026 of 260 households per annum for North Dorset.
- 5.16 It is important to recognise that whilst this 'toolkit' represents an important contribution to comparing and contrasting projected levels of growth and the underpinning drivers of change the input assumptions do not reflect the latest data available and considered in the remainder of this section.

³¹ 'Choice of Assumptions in Forecasting Housing Requirements Methodological Notes', Cambridge Centre for Housing & Planning Research (CCHPR), March 2013

Modelled Population / Household Projections

5.17 Edge Analytics have modelled the following alternative scenarios of population / household growth:

Official Projection

- 2010 SNPP Scenario – The 2010-based sub-national projection (SNPP 2010) from ONS is used in the analysis as the trend benchmark. This scenario has been developed using historical evidence from the period 2006-2010 and incorporates long-term assumptions on fertility, mortality and international migration that were defined in the 2010-based national projection for England³². The SNPP-2010 scenario is scaled to ensure consistency with the 2011 Census population, following its designated growth trend thereafter;

Alternative Trend Projections

- 5 year migration – Internal and international migration assumptions are based on the last 5 years of historical evidence;
- 10 year migration – Internal and international migration assumptions are based on a longer-term ten year trend projection factoring in not only the post-recessionary climate but also the more positive historical picture in the area;
- 10/5 year migration – Internal migration assumptions are based on the last 10 years of historical evidence, international migration assumptions are based on the last 5 years. This is included as it could be argued that a longer-term historical period is appropriate to derive internal migration assumptions (smoothing out short-term variation), but a shorter-term, five-year period is more appropriate for international migration (given the changes that have occurred since EU expansion in 2004-2006);

Policy-based Projections

- Local Plan (Dwelling-led Scenario) – This is the first of a series of scenarios which are 'constrained' to a chosen variable. Under these scenarios migration assumptions rather than being trend-based are adjusted to redress any imbalance between the constraint factor and the population. For this scenario the constraint applied is the number of dwellings provided each year with the Draft Local Plan provision of 280 dpa used. The POPGROUP model evaluates the impact of this dwelling trajectory by measuring the relationship between the number of homes in the authority, the number of households and the size of the resident population. Where an imbalance between the 'target' number of new homes and the resident population, then migration is used to redress the imbalance;
- Zero Jobs-led scenario – This scenario constrains growth to assume a zero level of employment growth over the plan period. This assumption is not grounded on the basis of evidence within the Draft Local Plan and is provided for illustrative purposes

³² Note: This therefore includes the now out-dated, mid-year population estimates and does not include 2011 Census information, although the forecast presented here has rescaled the 2010 trajectory to the 2011 Census population total, continuing its trend thereafter.

to highlight the important relationship between the provision of housing and the changing size of the labour-force and therefore the ability to accommodate employment change. The model assumes the use of migration to balance the relationship between the size of the labour force and the number of new jobs anticipated;

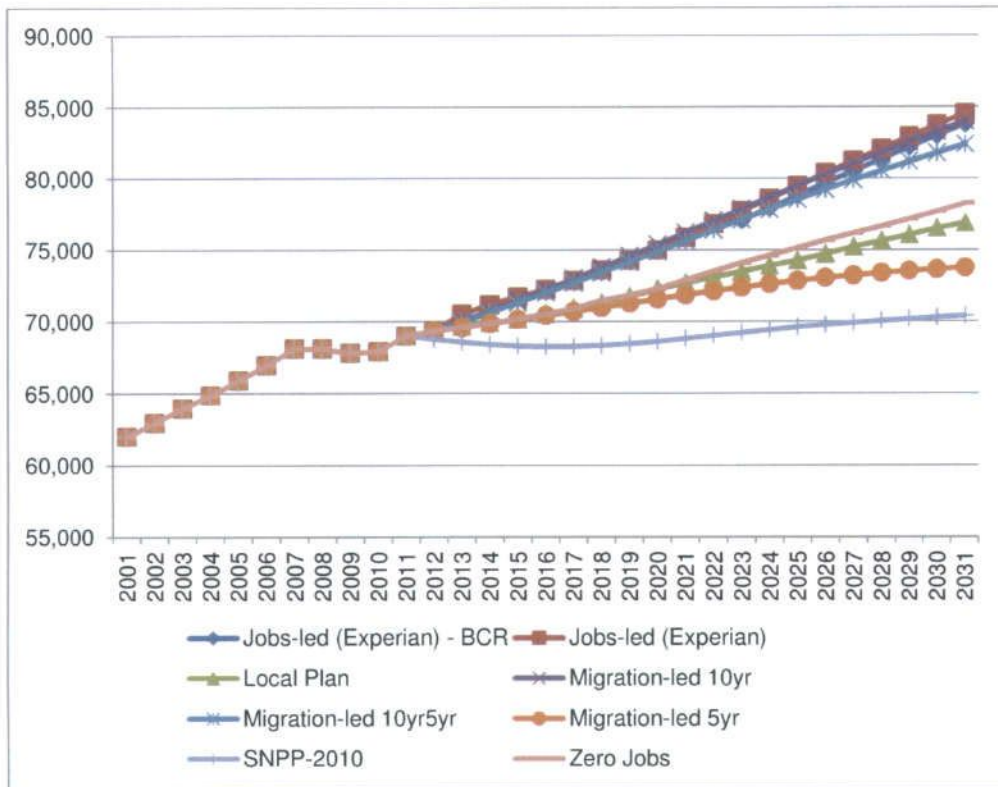
- Experian Jobs-led scenario – Under this scenario growth is constrained to the December 2013 Experian forecasts which show a moderate level of job growth for the authority;
- Employment-led Balancing Commuting – The preceding scenario assumes a retention of a fixed commuting ratio for the Borough, i.e. assuming a continuation of the authorities net exporting of labour. Under this scenario it is assumed that levels of commuting remain constant in absolute terms with all new jobs created in North Dorset assumed to be taken by a resident in the authority. Over the plan period this would result in a reduction in the overall rate of out-commuting. It is important to note that the success of this reduction of out-commuting will be dependent on the types of jobs provided and the matching with a suitably skilled labour-force as well as the development of a sufficient level of housing in other authorities in the wider housing market area to respond to their own changing labour-force demands.

Modelled Projection Outputs

Projections using the Interim 2011 SNHP household headship rates

- 5.18 This first set of scenarios has been modelled using the CLG's Interim 2011-based household headship rates, trended after 2021. The population growth trends are shown for each scenario are shown in the following chart which is then proceeded by a table summarising the main outputs of the scenario. This includes an overall level of population and household growth as well annual average projected change in migration, dwellings and jobs.

Figure 5.2: Population Projections – 2011-based headship rates



Source: Edge Analytics, 2014

Figure 5.3: North Dorset, Model Outputs – 2011-based headship rates

Scenario	Change 2011-2026		Average per year (2011 – 2026)		
	Population Change	Households Change	Net Migration	Dwellings	Jobs
Jobs-led (Experian)	11,375	5,679	716	401	135
Migration-led 10yr	11,277	5,640	708	399	132
Jobs-led (Experian) BCR	10,683	5,414	672	383	150
Migration-led 10yr5yr	10,220	5,328	655	377	82
Local Plan	6,942	3,969	447	281	6
Zero Jobs	6,684	3,870	432	274	-2
Migration-led 5yr	4,051	2,626	262	186	-96
SNPP-2010	777	1,210	130	86	-204

Source: Edge Analytics, 2014

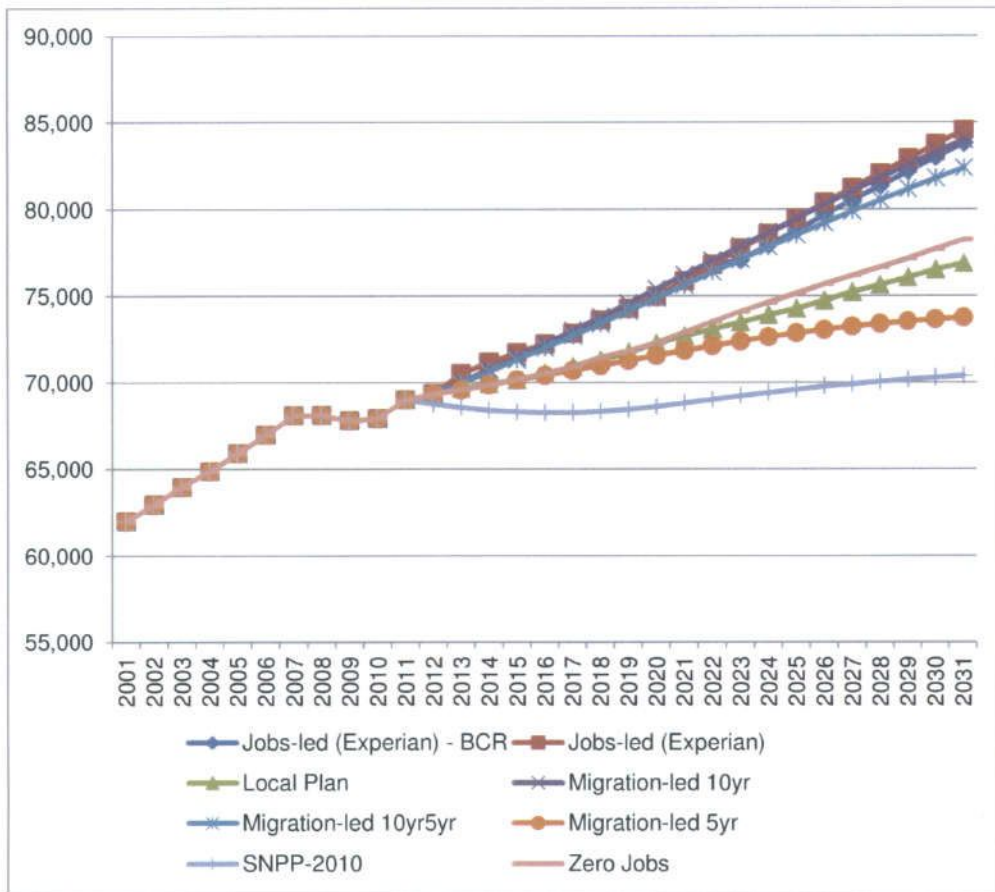
5.19 The scenarios show a wide range of potential projections of population and household growth within North Dorset.

- 5.20 The Jobs-led (Experian) scenario shows the highest level of household growth, although the Jobs-led (Experian) Balanced Commuting Ratio scenario and 10 year Migration-led scenarios all project household growth to surpass 5,000 over the period 2011 to 2026.
- 5.21 The Migration-led 5 year scenario projects a smaller scale of growth due to the considerably lower levels of net migration into the authority over recent years, with a substantial fall evidenced since 2007.
- 5.22 These scenarios – with the exception of the Migration-led 5 year – are notably higher than the Local Plan scenario, which projects household growth of a similar scale to the Zero Jobs scenario. This indicates firstly that the Draft Local Plan is providing for a level of housing which will lead to a lower level of migration than that seen over the last ten years and secondly that dwelling provision at this level would be unlikely to support positive job creation in the authority.

Projections using the 2008 SNHP household headship rates

- 5.23 The second set of scenarios has been modelled using CLG's 2008-based headship rates. The rates have been scaled to ensure that they reproduce the 2011 Census household totals but follow their original trend for the remainder of the projection period.
- 5.24 The 2008-based headship rates have higher rates of household formation for single-person and two-person-no-children households, resulting in a sharper decline in occupancy rates. This is reflected in the resultant household projections under this iteration of the modelling which generate higher levels of growth from the same level of population growth.

Figure 5.4: Population Projections – 2008-based headship rates



Source: Edge Analytics, 2014

Figure 5.5: North Dorset, Model Outputs – 2008-based headship rates

Scenario	Change 2011-2026		Average per year (2011 – 2026)		
	Population Change	Households Change	Net Migration	Dwellings	Jobs
Jobs-led (Experian)	11,375	6,238	716	441	135
Migration-led 10yr	11,277	6,197	708	438	132
Jobs-led (Experian) BCR	10,683	5,964	672	422	150
Migration-led 10yr5yr	10,220	5,867	655	415	82
Zero Jobs	6,684	4,377	432	309	-2
Local Plan	5,714	3,992	371	282	-31
Migration-led 5yr	4,051	3,104	262	219	-96
SNPP-2010	777	1,733	130	122	-204

Source: Edge Analytics, 2014

Summary

- 5.25 As the scenarios show, there is a clear differentiation between projections based on short-term trends – highly influenced by the economic downturn – and scenarios which are based on longer-term trends, which are more likely to be representative of established trends and demographic characteristics in North Dorset.
- 5.26 Importantly, the cluster of long-term migration-led scenarios are closely aligned to job growth scenarios, based on Experian forecasts. These scenarios are notably higher than the Local Plan scenario, which does not plan for a positive job growth reflecting to a much greater extent the recessionary environment of the preceding years as opposed to the more positive outlook forecast and apparently sought through the plan.
- 5.27 A longer-term view, considering economic growth and performance prior to the downturn, yields a notably higher projected population and household growth.

6 Market Signals

6.1 The NPPG reiterates the importance of establishing a clear understanding of the balance between supply and demand factors in assessing the scale of backlog of housing needs which should be considered with regards to future provision. In particular, the guidance suggests that a number of market signals should be considered, including:

- Land prices – an indicator of demand for land relative to supply;
- House prices – establish the level of inflation and identify long-term imbalances between supply and demand;
- Rents – the cost of consuming housing in a market area;
- Affordability – comparing house prices against residents' ability to pay; and
- Housing delivery – establish the level of additional housing supply³³.

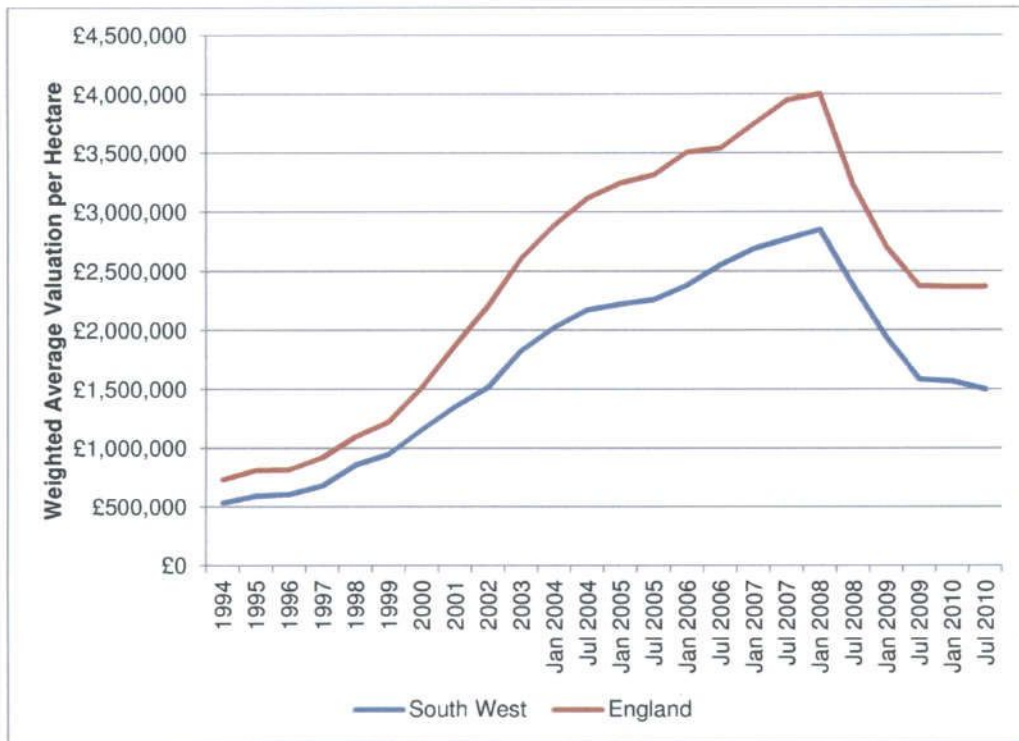
6.2 Each of these factors is considered in turn in this section.

Land Prices

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

³³ <http://planningguidance.planningportal.gov.uk/blog/guidance/assessment-of-housing-and-economic-development-needs/what-methodological-approach-should-be-used/>

Figure 6.1: Residential Building Land Valuation



Source: DCLG

- 6.4 As shown, land prices generally increased at the start of the period analysed, up to January 2008. At this point, the onset of the economic downturn stimulated a decline in land values, with reduced demand from residential developers owing to the credit crunch and subsequent reduction in the level of housing market activity. Overall, land prices in the south west are lower than the average for England, which are skewed to some extent by high land values in London.
- 6.5 This dataset does not extend beyond 2010, due to a decline in market activity. However, a collection of statistical and anecdotal evidence can provide an indication of the preceding trends in land values.
- 6.6 A number of up-to-date assessments have been produced by property companies which suggest the start of a recovery in the residential land market. Savills³⁴ partially attribute an increase in sales activity to government funding initiatives, such as Help to Buy, and explain that the top housebuilders are actively looking for pipeline development land, increasing the level of demand. However, relative to the market peak, values remain substantially lower, although there is significant variation at a regional and local level. In the south west, for instance, greenfield land values are 28% lower than their former peak, with urban land values around 38% lower. Knight Frank also published similar research³⁵ which indicates that, in England and Wales – exclusive of London – average

³⁴ Savills (May 2013) Market in Minutes – UK Residential Development Land

³⁵ Knight Frank (2013) Residential Research – Residential Development Land Index

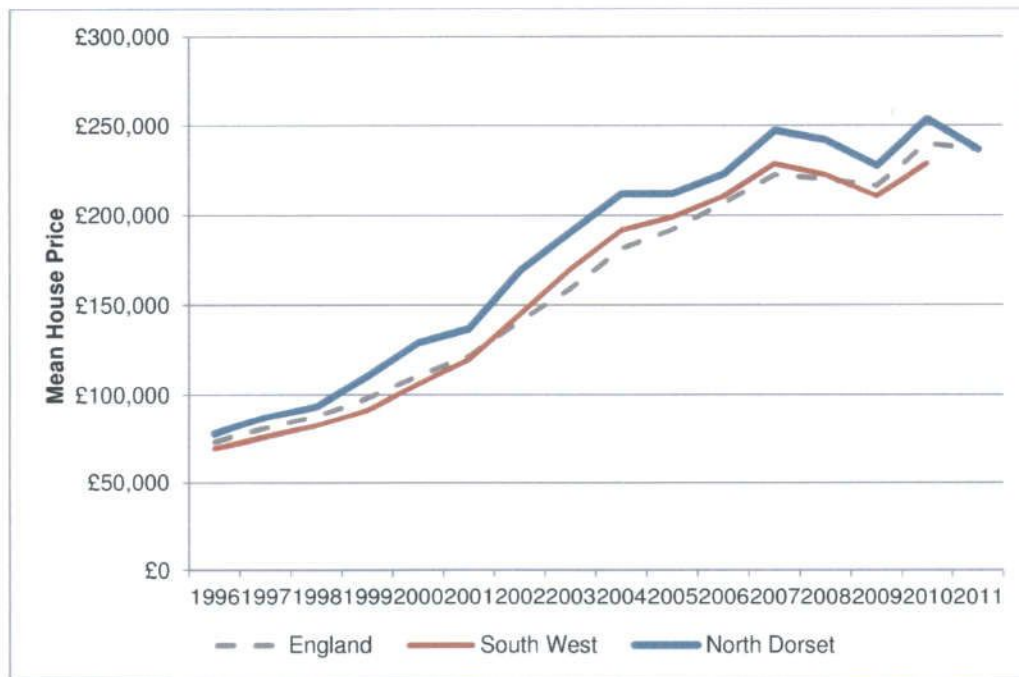
development land value rose by 2.7% in Q3 2013, with values up 4.3% on the year. This is attributed to an increase in house prices nationally, as well as rising sales seen by housebuilders. The influence of the NPPF is also apparent, with housebuilders bidding to fill gaps in the five year housing supply.

- 6.7 Local context can be added through a review of the Affordable Housing Provision and Developer Contributions Study³⁶, prepared in 2010 to cover Dorset as a whole and with particular consideration given to the delivery of affordable housing. Data on residual land values in North Dorset is included in this report, indicating that – with no affordable housing requirement – land values in the authority range from around £1.8million to £4.8million per hectare, based on an average density of between 30 – 40 dwellings per hectare. Considering the emerging affordable housing requirement of between 30-40%, this typically reduces the residual land value to between £0.8million and £2.9million per hectare, based on an average density scheme. Values are typically highest in Blandford Forum and rural areas, and Shaftesbury and Gillingham also command high prices.

House Prices

- 6.8 Data published by DCLG allows the analysis of house prices in North Dorset over time. The change in mean house price is presented in the chart below, although it should be noted that the regional average was discontinued in 2010.

Figure 6.2: Change in Mean House Price 1996 – 2011



Source: DCLG, 2013

³⁶ Dr Andrew Golland (2010) Dorset Authorities' Affordable Housing Provision and Developer Contributions in Dorset

- 6.9 As shown, house prices in North Dorset have been consistently higher than the regional and national averages across the time period analysed. The onset of the economic recession saw a decline in house prices between 2008 and 2009, but the market recovered to reach a peak in 2010 before another small decline in 2011.
- 6.10 It is important to consider that, since 2011, the national housing market has shown signs of recovery, in line with a return to economic growth and stimulation of the market through low interest rates, increasing availability of mortgage finance and government initiatives such as Help to Buy. This has raised confidence, leading to an increase in demand which – coupled with persistent supply issues – has resulted in house price growth and an upturn in housing market activity. As such, it is expected that total transactions in 2013 are likely to exceed one million for the first time since 2007³⁷.
- 6.11 For North Dorset, this change can be modelled through an analysis of Land Registry data on housing transactions to calculate average house prices. In 2012, the average house price in the authority was £241,726, equivalent to an increase of 2.1% compared to the 2011 DCLG figure. In 2013, this further grew to £254,753 – a 5.4% year-on-year increase³⁸. This indicates a strong market recovery in the authority, reflecting the complex relationship between limited supply and a sustained high demand for housing in the area.

Rents

- 6.12 Between 2001 and 2011, the number of households operating in the private rented sector in North Dorset has increased by 1,355 – equivalent to a growth of 72% - such that, in 2011, 11.3% of households rent from a private landlord or letting agency, compared to only 7.5% in 2001. This growth has been driven, at least in part, by issues relating to the ability to access mortgage finance and a lack of affordable stock to meet needs.
- 6.13 The following table provides an analysis of monthly rental values, based on Private Rental Market Statistics published by the Valuation Office Agency. Lower quartile and median values are shown to represent entry-level and mid-level rents. As shown, rents are higher in North Dorset, relative to the regional and national averages.

Figure 6.3: Monthly Rental Values (December 2013)

	Lower Quartile	Median
North Dorset	£525	£650
South West	£520	£625
England	£455	£595

Source: VOA, 2013

³⁷ Halifax (2013) Halifax UK Housing Market Outlook for 2014

³⁸ Note that December 2013 transactions are not available at the time of writing, and a 2013 average has therefore excluded transactions recorded in this month

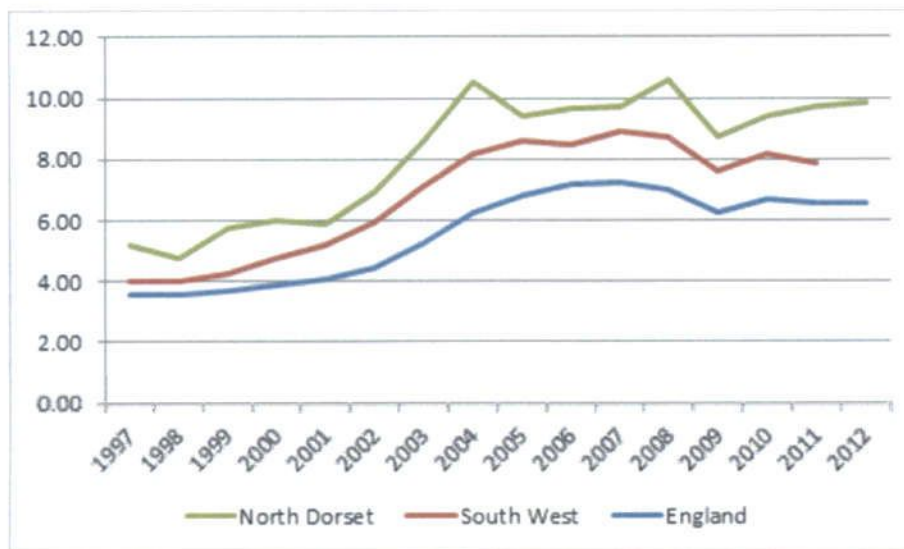
- 6.14 Overall, it is evident that there is a fair amount of pressure on the private rented stock, which is likely to be linked to the important role it plays in addressing a shortfall in affordable housing need, considered in more detail below.
- 6.15 The 2011 SHMA also includes an analysis of private market rents, and indicates that the cost of private rented accommodation has increased since 2007, particularly for larger properties. Although house prices have fallen in subsequent years, the increase in rents over the same period suggests that affordability pressures have impacted on the private rented sector creating higher levels of demand. Again this highlights the impact of supply failing to keep pace with demand and the continuing affordability issues facing lower income households in the authority.

Affordability

- 6.16 The 2011 SHMA identified a net annual need for 387 affordable properties a year over the next five years. This was calculated using the standard DCLG calculation methodology, the steps of which are retained within the NPPG.
- 6.17 A substantial amount of this annual need is attributed to net future need, 370 households per annum, suggesting that seeking to address this issue is important in ensuring that households are able to stay within the authority to have their housing needs met.
- 6.18 The level of affordable housing need identified through the SHMA evidently exceeds the total proposed annual provision of housing within the Draft Local Plan. This suggests that the current policy position will continue to exacerbate the issue rather than serve to address it significantly. This also needs to be considered in the context of the preceding analysis regarding rising private rents.
- 6.19 The implications of affordability issues on the dynamics of the population are recognised within the Draft Local Plan, which identifies that North Dorset:
- "has an ageing population with a high level of migration of young people out of the area. The SCS [Sustainable Community Strategy] identifies that across Dorset priorities are to enable children and young people to realise their potential and to ensure that older people are healthy, active and independent in their communities"*
(pg 19)
- 6.20 The challenge of meeting affordable needs and therefore ensuring that younger households can remain in the area is also acknowledged within the Draft Local Plan drawing on Community and Parish Plans. The Draft Plan acknowledges the challenge of:
- "the provision of affordable housing, which is part of the wider challenge for Dorset of seeking to ensure that everyone can live in a good quality home and neighbourhood that meets their needs."* (pg 19)
- 6.21 The 2011 SHMA is evidently dated, noting the changing rental values and house price sale values within this section. This would suggest a further worsening of affordability issues over this period.

- 6.22 This is reinforced when considering affordability ratios over time, as published by the CLG and used to benchmark the comparative affordability issues facing authorities. The following chart indicates that North Dorset's ratio has consistently exceeded the national average. Whilst the onset of the credit crunch served to reduce slightly this ratio it has consistently exceeded the national average by some distance.
- 6.23 Importantly considering the more recent years of data in North Dorset shows a continued return to higher ratios which does not reflect the national trend which has seen a more stable picture. This would indicate that the imbalance between the supply and demand for housing is continuing to exacerbate already significant affordability issues.

Figure 6.4: Affordability Ratio



Source: DCLG Live Tables, 2014

- 6.24 Overall in considering affordability it is evident that – as with many areas across the country – a significant need for affordable housing exists. Suppressed house prices have been alleviating the balance of affordability to a degree but it would appear that the limited supply of affordable housing in the authority is placing extra pressure on the private rented sector which is reflected in rental values. The provision of new affordable housing is an important consideration to enable the authority to retain its newly forming households.

Rate of Development

- 6.25 The following table sets out the net completions for the authority between 2002-2003 and 2011-2012 indicating the variance against the RSS requirement.

Figure 6.5: Net Housing Completions 2002 -2012 against RSS Requirement

Year	Dwelling Completions (Net)	Annual Average Dwelling Provision	Dwellings Variance	Balance (Cumulative)
2002-2003	445	350	95	95
2003-2004	590	350	240	335
2004-2005	490	350	140	475
2005-2006	555	350	205	680
2006-2007	269	350	-81	599
2007-2008	194	350	-156	443
2008-2009	207	350	-143	300
2009-2010	192	350	-158	142
2010-2011	272	350	-78	64
2011-2012	375	350	25	89

Source: North Dorset Council Annual Monitoring Reports, Various

- 6.26 It is evident from the above chart that the authority has delivered slightly in excess of the RSS requirement of 350 dwellings per annum (target over 2006 – 2026) over the period 2002 – 2012.
- 6.27 The capacity to deliver higher net housing numbers is also evident with the first four years of the period, showing net completion figures between 445 and 555 dwellings.
- 6.28 In considering the above it is important to reflect on the analysis in section 3 which identified the historic 'constraint' based setting of the housing requirement for North Dorset rather than reflecting local needs.
- 6.29 The impact of the recession / economic downturn is apparent with the ten year average net completion figure being 356 dpa compared with the five year average of 248 dpa.

Overcrowding

- 6.30 Census 2011 data can be used to consider the scale of overcrowding in the authority. This indicated in 2011 that 2.2% of households lived in overcrowded circumstances

(based on bedrooms)³⁹, which was lower than the South West average of 2.9% and considerably lower than the national average of 4.8%.

- 6.31 Consideration of the DCLG Live Tables datasets suggests that on 30th September 2013, no homeless households were accommodated within North Dorset, compared to a figure of 2 on the same day in 2010. Overall, analysis of the first dataset – covering the quarter from July to September 2013 – indicates that 16 applicant households were classified as homeless in North Dorset during this period.
- 6.32 Collectively this data doesn't suggest a significant imbalance between supply and demand factors in relation to the occupation of current stock although the homelessness figures suggest symptoms of an increasingly acute affordability challenge.

³⁹ Occupancy rating of -1 or lower

7 Conclusion: An Objective Assessment of Need for North Dorset

Introduction

- 7.1 The analysis in this section uses the information set out in sections 1 – 6 to derive an objective assessment of the future need for housing in North Dorset over the Local Plan period of 2011 - 2026.
- 7.2 This is undertaken on the basis of the NPPF which sets out that plans should be prepared on the basis of meeting full needs for market and affordable housing. As set out in Section 2 the NPPG establishes that the latest national projections should be seen as a starting point but recognises that authorities may consider sensitivity testing projections in response to local circumstances and more up-to-date demographic evidence.
- 7.3 Equally the NPPG also establishes that it is important to consider whether other factors such as the balance between the changing labour supply and forecast employment growth and market signals suggests the need to uplift provision beyond a baseline position of need. This is considered in the context of the analysis presented in sections 4 - 6.
- 7.4 The objectively assessed need must not be constrained by supply or delivery aspects as set out in the NPPF. The analysis does not therefore factor in delivery or environmental constraints. This will need to be considered further in relation to the Council's evidence base. Where the full objectively assessed needs cannot be met based on an evidenced assessment of potential supply this would require agreements with neighbouring authorities to re-distribute and provide for this need through the duty-to-cooperate.

Objectively Assessed Need Scenarios

- 7.5 The modelling within section 5 includes two separate variations of dwelling requirements linked to the modelled projections of population change associated with the application of Interim 2011 and 2008 headship rate assumptions. The following table takes an average of the resultant annual average dwelling requirement under the two variant projections. As identified in section 5 this is considered to represent a balanced view recognising the context within which both projections were built. This does not therefore serve to project over the longer-term the potentially 'suppressed' rates indicated through the 2011 dataset not does it utilise the 2008 rates over the full plan period.

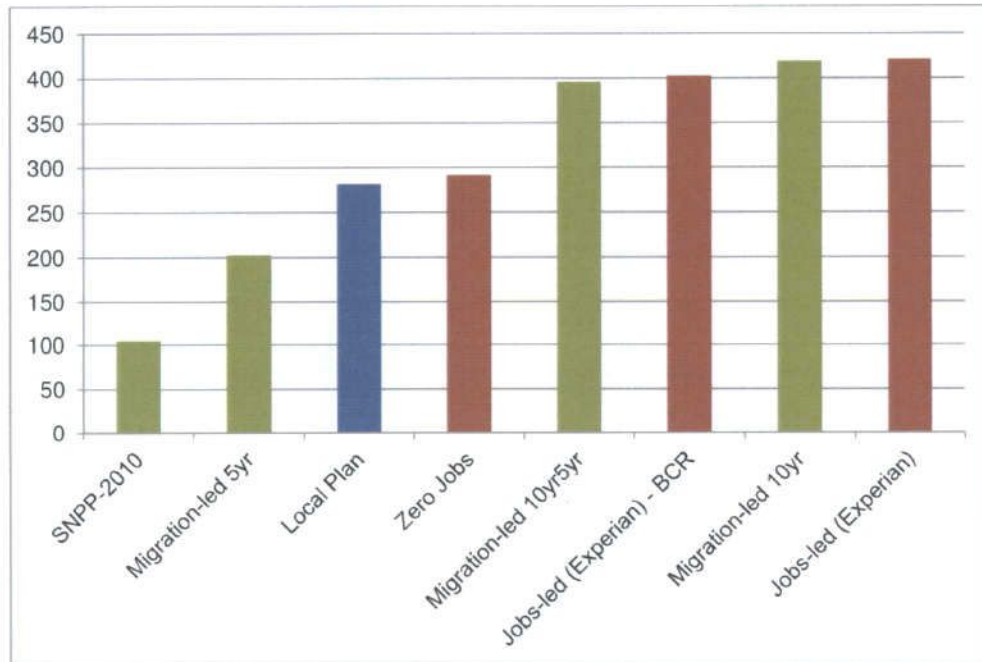
Figure 7.1: Average Dwelling Requirements for all modelled scenarios

Scenario	Average number of dwellings per year 2011-2026		
	2011-based CLG Headship Rates	2008-based CLG Headship Rates	Average
Jobs-led (Experian)	401	441	421
Migration-led 10yr	399	438	419
Jobs-led (Experian) – BCR	383	422	403
Migration-led 10yr5yr	377	415	396
Zero Jobs	274	309	292
Local Plan	281	282	282
Migration-led 5yr	186	219	203
SNPP-2010	86	122	104

Source: Turley Associates / Edge Analytics, 2014

7.6 These dwelling requirements are displayed in the following graph to illustrate the full spectrum or range modelled. Note that employment-led scenarios are coloured in red, with demographic scenarios shown in green and dwelling-led scenarios in blue.

Figure 7.2: North Dorset summary of scenarios – average dwelling requirement



Source: Edge Analytics / Turley Associates, 2014

An Objective Assessment of Need

7.7 In order to arrive at an objective assessment of need the analysis in this section considers the implications of the different scenarios of growth. This takes into account a series of tests aligned to the NPPF / Draft NPPG and the analysis presented in this report, namely:

- The need to 'boost significantly the supply of housing'
- Balancing the needs of the economy
- Implications of market signals analysis

Development Rates and 'boosting' supply

7.8 The NPPF recognises a national need to ensure the delivery of a wide choice of high quality homes and the role of planning to aid in boosting significantly the rate of development. This recognises a national evidenced position of under-supply over a number of years and the importance placed on collectively addressing this through the setting of future local planning policy.

7.9 At a basic level this suggests that future policy should accommodate for the provision of a level of development which exceeds that which has been developed historically. The scale of the increase, the Draft NPPG explains, should be related to consideration of the historic rate of development in relation to planned supply.

7.10 In the case of North Dorset the analysis of the historic rates of development (Figure 5.5) reveals a ten year average provision of 356 dpa. This exceeds the planned level of supply within the Draft RSS (255 dpa 2006 – 2026) and marginally exceeds the Proposed Changes version of the RSS (350dpa) and the Bournemouth, Dorset and Poole Structure Plan (347 dpa 1994 – 2011). Over this period this would suggest that provision has closely matched the planned level.

7.11 Considering more recent rates of development, however, suggests a marked departure from this longer-term average with only 248 dpa delivered between 2007/08 and 2011/12. It is assumed this reflects, at least in part, the implementation of a policy constraint in the form of the 'Managing Housing Land Supply in North Dorset SPD' and the wider market context.

7.12 The current Draft Local plan provides for 280 dpa over the plan period to 2026. Whilst this would exceed more recent levels of development it is equally apparent that these do not reflect a 'true' non-constrained picture of need. Even recognising that there has been a long-standing approach of policy constraint towards housing in the area prior to 2007 the authority was providing for housing at a level in excess of 350 dpa. It is against this longer-term and more reflective policy / market position against which the ability of the Draft Local Plan to 'boost' the supply of housing should be assessed. A level of provision below this figure will not represent a 'positive' approach to planning which responds to longer-term assessed need.

Demographic and Migration Pressures

- 7.13 The Draft NPPG identifies that in considering projection-based estimates of housing need 'plan makers may consider sensitivity testing, specific to their local circumstances'. In this regard the Draft NPPG states:

"Account should also be taken of the most recent demographic evidence including the latest Office of National Statistics Population estimates" (Draft NPPG)

- 7.14 In the case of North Dorset it is apparent that the latest Interim SNHP dataset suggests a low level of future need, generated by a projected growth of approximately 175 additional households per annum between 2011 and 2021. This represents a notable reduction from the 2008 SNHP dataset, which significantly informed the 2011 SHMA for the authority which recommended that provision should seek to accommodate the growth of approximately 273 households per annum between 2011 and 2031. It is this level of growth against which the Draft Local Plan has sought to align its housing policy.
- 7.15 Significantly, however, the analysis of the latest demographic datasets in section 4 has clearly identified that the results of the 2011 Census confirmed that the ONS had significantly under-estimated population growth in North Dorset in the inter-census years (Figure 4.1). This under-count is most pronounced in the latest sets of population and household projections datasets where the cumulative impact of the under-count is compounded based on a longer-period.
- 7.16 The analysis throughout this report has identified that the last five years cannot be considered as representative of housing needs in the area, recognising the impact of policy, the state of the local and national economy and the operation of the housing market.
- 7.17 The impact of modelling forward future need on the basis of demographic trends over the past 5 years in contrast to the last 10 years is strongly evidenced through the projections presented in section 5 (Figure 5.1). A continuation of the shorter-term trend would suggest a population growth between 2011 and 2026 of only approximately 4,050 people. In contrast the projecting forward of growth based on a ten year trend would result in a growth of over double this at approximately 11,300 additional people. The key variable in these differing levels of change is the assumed scale of migration with the 5 year trend projected a net average in-migration of approximately 260 persons per annum against the 10 year trend of just over 700 per annum.
- 7.18 The scenario titled 'Migration-led 10yr5yr' provides an intermediary position factoring in a shorter trend based projection of international migration (noting that this is a negative component under all of the migration-led scenarios) recognising the arguably one-off impact of the EU expansion (2004-2006). This continues to suggest a level of population growth just in excess of 10,000 people between 2011 and 2026.
- 7.19 Recognising the 2011 Census correction of historic estimates of population growth, as well as the combination of policy and market factors that have constrained net in-migration and household formation within the authority over more recent years, the longer-term demographic trend-based scenarios are considered to represent an

important indication of the trend-based need for housing. This suggests the need to plan for approximately 400 dwellings per annum over the plan period.

Balancing the Needs of the Economy

- 7.20 The NPPF provides a strong steer as to the expectation that: *"The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth"* (Paragraph 19).
- 7.21 This is reflected in the Draft NPPG which highlights the importance of evidence considering the balance between the projected accommodated supply of working age people (labour force supply) and the projected job growth.
- 7.22 The modelling presented in section 5 clearly shows that limiting the growth of the population to a rate of development aligned to the Draft Local Plan will suppress growth in the authority's potential labour-force.
- 7.23 The modelling suggests that even to support a level of employment which remains relatively static, as a result of an ageing population, the authority would need to plan for the provision of approximately 300 homes dpa. A static level of job growth in the authority is not consistent with the historic performance of the authority, the Council's own evidence and policy steer as well as up-to-date sourced economic forecasts.
- 7.24 In order to plan for a more positive level of job growth it will be important that the Draft Local Plan provides for a higher level of housing than that currently planned for. The modelling of projections linked to the latest Experian forecasts suggests the need to provide for approximately 400 – 420 dpa. This would support the provision of a growth of approximately 2,000 new jobs over the plan period or 135 additional jobs per annum on average.

Implications of Market Signals

- 7.25 Paragraph 17 of the NPPF strongly references the importance of understanding market signals in the context of objectively identifying the housing needs of an area. This is further clarified through the Draft NPPG which states:
- "The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings."* (Draft NPPG)
- 7.26 The review of the recommended range of market signals in section 6 has provided further evidence as to the importance of ensuring that the future supply of housing at least meets projected need based on historic levels of migration.
- 7.27 It is evident from the Council's own evidence base that affordability challenges are significant in the authority, both in a local but also a national context. House price growth over the last ten years has been significant and notably out-paced comparable income growth. The result has been a calculated affordability ratio (the DCLG's own measure)

which has continuously remained around 10 since 2004. This exceeds the national average significantly over this period and importantly in contrast to the national average has seen a rising trend over more recent years, since 2009.

- 7.28 The impact of this imbalance is manifest in the identified need for 387 affordable properties per annum (2011 SHMA), against which actual provision has significantly failed to keep pace historically. Further evidence of the impact on the wider market is a significantly increased size of rental market locally which commands above average rents that have also continued to increase since 2007.
- 7.29 A failure to adequately respond to meeting the needs of all households in the authority will contribute towards a further worsening of affordability challenges and potentially a continued constraining of household formation rates and an increase in unmet housing need. This is likely to affect a wide spectrum of households but in particular newly forming households, including younger working-age persons that will have to seek more affordable accommodation elsewhere. It is evident within the Draft Local Plan that this does not reflect the overall vision or its supporting objectives.

Conclusion

- 7.30 The analysis above strongly identifies that the objectively assessed need for housing in the authority suggests the need to plan for the provision of a minimum of 400 dpa up to 2026.
- 7.31 This level of provision would represent a boosting of recent levels of development and a return to historic rates of development evidenced over a longer-term which are considered more reflective of the market response to housing need.
- 7.32 If sufficient housing is not provided, out-migration of households will occur, impacting on the sustainability of the current migration profile and potentially leading to a decline in the younger working-age population who are critical to the future economic performance of North Dorset.
- 7.33 Equally a level of provision below this level, which represents a longer-term projection of historic trends, is extremely unlikely to assist in addressing the significant affordability issues apparent in the authority. This will serve to further worsen the ability of the area to retain younger working age households who would be increasingly priced out of the local market continuing to impact on the sustainable growth of the area.

Note in Interpretation of the Report

- 7.34 The findings within this report are based on the assumptions set out within Appendix 1 and the methodological text in the preceding chapters. As is customary with evidence based analysis, our findings should be regarded as valid for a limited period of time and should be subject to examination at regular intervals
- 7.35 Whilst every effort has been made to ensure that the data contained in it is correct, no responsibility can be taken for omission or erroneous data provided by a third part or due to information being unavailable or inaccessible during the research period.

Appendix 1: Population and Household Modelling Data Inputs, Methodology and Assumptions

Summary

The development and evaluation of the suite of scenarios of demographic change is dependent upon the collection of a range of data inputs and the derivation of a number of key assumptions. These provide an historical perspective on demographic change and the basis for the calculation of demographic parameters that determine future growth trajectories.

All data and assumptions are held within POPGROUP and Derived Forecast (DF) 'input' files, which are configured to enable the specific scenarios to be evaluated. To ensure transparency and to aid interpretation of output, the following sub-sections provide a summary of the population, household and labour force data inputs.

Population, births, deaths and migration

Population

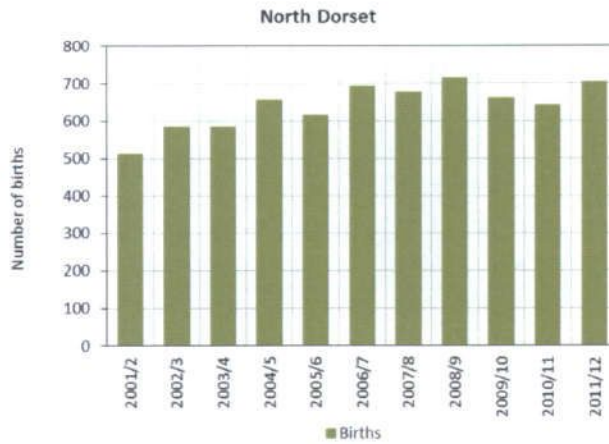
Historical population statistics are provided by the mid-year population estimates for 2001 to 2012. All data are recorded by single year of age and sex. These data include the revised mid-year population estimates for 2002-10, released by ONS in May 2013, providing consistency in the measurement of the components of change (births, deaths, internal migration and international migration) between the 2001 and 2011 Censuses.

Births and fertility

Historical mid-year to mid-year counts of births by sex from 2001/02 to 2011/12 have been sourced from ONS Vital Statistics (Figure 1).

A 'national' age-specific fertility rate (ASFR) schedule, which measures the expected fertility rates by age and sex for England in 2013-14, is included in the POPGROUP model assumptions. In order to provide more appropriate assumptions a district-specific fertility differential has been derived based on the last year's (2010/11) total fertility rate (TFR) for North Dorset. In combination with the population-at-risk, this provides the basis for the calculation of births in each year of the forecast period.

Long-term assumptions on change in age-specific fertility rates are taken from ONS 2012-based national population projections.



Source: ONS Vital Statistics

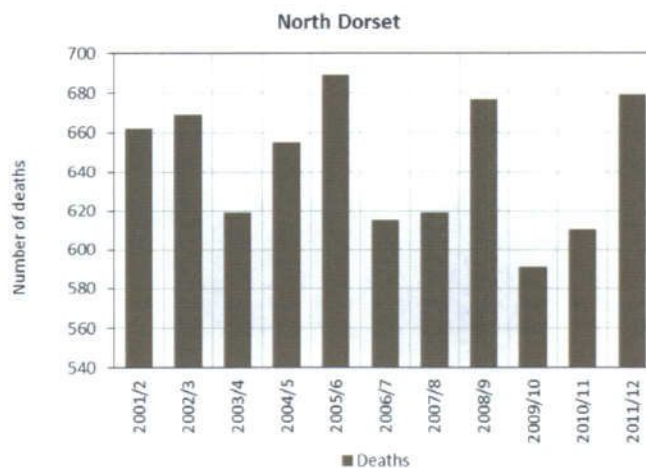
Figure 1: North Dorset - births (2001/02 to 2011/12)

Deaths and mortality

Historical mid-year to mid-year counts of deaths by age and sex from 2001/02 to 2011/12 have been sourced from ONS Vital Statistics (Figure 2).

A 'national' age-specific mortality rate (ASMR) schedule, which measures the expected mortality rates by age and sex for England in 2013-14, is included in the POPGROUP model assumptions. To provide more appropriate assumptions a district-specific mortality differential has been derived based on the last year's (2010/11) standardised mortality ratios (SMRs) for North Dorset. In combination with the population-at-risk, these provide the basis for the calculation of deaths in each year of the forecast period.

Long-term assumptions on change in age-specific mortality rates are taken from ONS 2012-based national population projections.



Source: ONS Vital Statistics

Figure 2: North Dorset - deaths (2001/02 to 2011/12)

Internal migration

The original source of internal migration statistics is the PRDS, which captures the movement of patients as they register with a GP. This data provides an accurate representation of inter-area flows, albeit with some issues with regard to potential under-registration in certain age-groups (young males, in particular). Historical mid-year to mid-year counts of in- and out-migration by five year age-group and sex from 2001-02 to 2011-12 have been sourced from the 'components-of-change' files that underpin the ONS mid-year estimates. Any 'adjustments' made to the mid-year estimates to account for prisoner and armed forces movements are included in the internal migration balance.

For the SNPP-2010 scenario, age-specific migration rate (ASMigR) schedules for both in- and out-migration are drawn directly from the ONS 2010-based assumptions. For the alternative trend scenarios, migration rate assumptions have been derived from historical data, using a five year history to determine these assumptions. In combination with the population-at-risk, these provide the basis for the calculation of internal migration flows in each year of the forecast period.

Jobs-led and dwelling-led scenarios calculate their own migration assumptions to ensure an appropriate balance between population, the labour force and households, given the 'constraints' on growth that are imposed in each scenario.

International migration

Historical mid-year to mid-year counts of total immigration and emigration from 2001-02 to 2011-12 have been sourced from the 'components-of-change' files that underpin the ONS mid-year estimates. Asylum cases are included in the international migration statistics.

For the SNPP-2010 scenario international migration counts are drawn directly from the ONS 2010-based assumptions. For the alternative trend scenarios, migration assumptions have been derived from historical data, using a five year history to determine these data. The alternative jobs-led and dwelling-led scenarios calculate their own migration assumptions to ensure an appropriate balance between population, the labour force and households, given the 'constraints' on growth that are imposed in each scenario.

Households

Household statistics and assumptions have been taken from the 2001 and 2011 Censuses and from the 2008-based and 2011-based household projection models. In April 2013 CLG released its latest household projections for local authority districts in England, incorporating household data from the 2011 Census and underpinned by the 2011-based interim sub-national population projections.

Household projections are derived through the application of household headship rates to an age-sex disaggregated population. The projected household headship rates used in the 2011 household model have been derived using 2011 Census data in combination with statistics from the Labour Force Survey. Household-types are modelled within a 17-fold classification (Table 1).

Household projections take explicit account of the 'population-not-in-households'. For the 2011-based household model this data has been drawn directly from the 2011 Census. The relationship between households and dwellings is modelled using a 'vacancy rate' based on the ratio between households (occupied, second homes and vacant) and dwellings (shared and unshared) from the 2011 Census. The

calculated vacancy rate for North Dorset is 5.7%. This value remains constant throughout the forecast period.

Table 1: Household type classification

CLG code	DF label	Household type
OPM	OPMAL	One person households: Male
OPF	OPFEM	One person households: Female
OCZZP	FAMC0	One family and no others: Couple: No dependent children
OC1P	FAMC1	One family and no others: Couple: 1 dependent child
OC2P	FAMC2	One family and no others: Couple: 2 dependent children
OC3P	FAMC3	One family and no others: Couple: 3+ dependent children
OL1P	FAML1	One family and no others: Lone parent: 1 dependent child
OL2P	FAML2	One family and no others: Lone parent: 2 dependent children
OL3P	FAML3	One family and no others: Lone parent: 3+ dependent children
MCZDP	MIX C0	A couple and one or more other adults: No dependent children
MC1P	MIX C1	A couple and one or more other adults: 1 dependent child
MC2P	MIX C2	A couple and one or more other adults: 2 dependent children
MC3P	MIX C3	A couple and one or more other adults: 3+ dependent children
ML1P	MIX L1	A lone parent and one or more other adults: 1 dependent child
ML2P	MIX L2	A lone parent and one or more other adults: 2 dependent children
ML3P	MIX L3	A lone parent and one or more other adults: 3+ dependent children
OTAP	OTHHH	Other households
TOT	TOTHH	Total

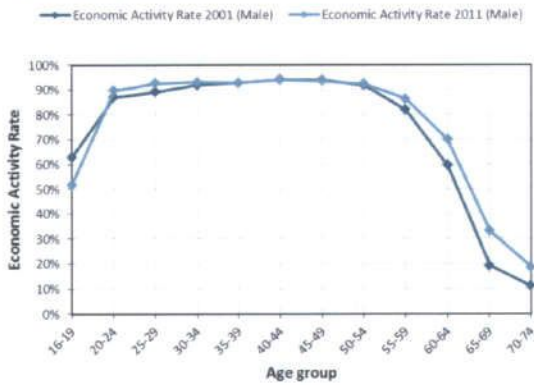
Employment & economic activity

There are three key data items required to derive labour-force projections and to evaluate jobs-led forecasts: economic activity rates, commuting ratio and an unemployment rate. Economic activity rates provide the basis for calculating the size of the labour force within the population. The commuting ratio and unemployment rate control the balance between the size of the labour force and the number of jobs available within an area.

Economic activity rates

Comparison of male and female economic activity rates for North Dorset in 2011 to the 2001 rates shows an increase in economic activity of older males and a noticeable increase in almost all age groups for females (except 16-24) over the 10-year period (Figure 3).

North Dorset



North Dorset

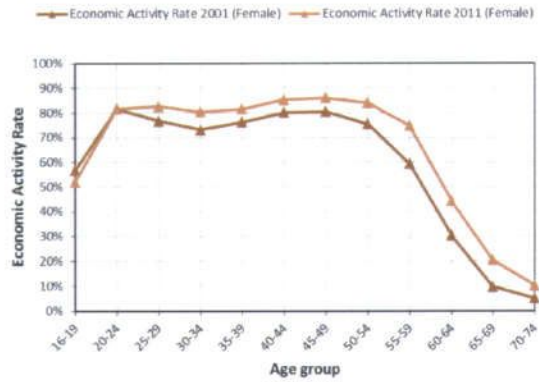
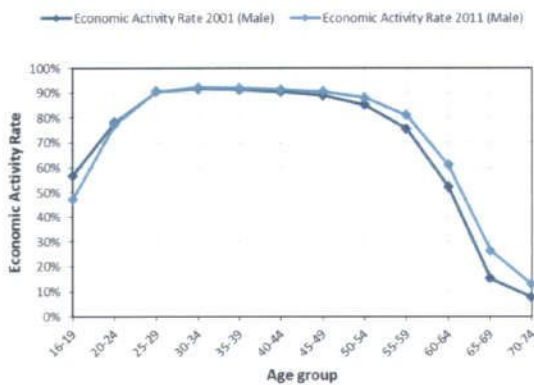


Figure 3: North Dorset - economic activity rates, males & females (2001 vs. 2011)

Economic activity in North Dorset follows a general trend for the whole of England (Figure 4).

England



England

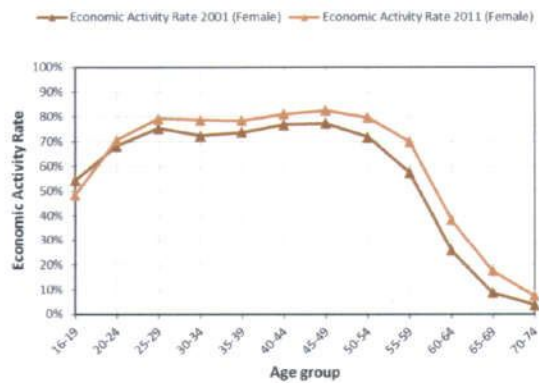


Figure 4: England - economic activity rates, males & females (2001 vs. 2011)

Economic activity rates by 5-year age group and sex for North Dorset, as used in the projections, have been derived from the 2011 Census statistics (Figure 5).

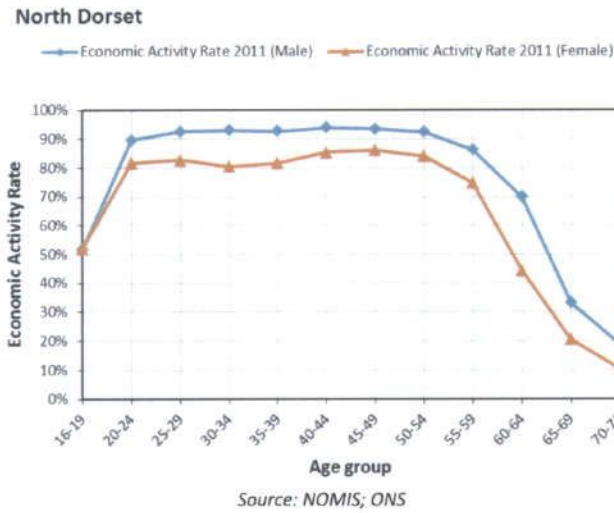


Figure 5: North Dorset - baseline economic activity rates (2011)

To account for an expected increase in the rate of labour force participation in the older age groups resulting from changes to state pension age, economic activity rates have been increased in the following way:

- Women aged 60-64: 40% increase by 2020
- Women aged 65-69: 20% increase by 2020
- Men aged 60-64: 5% increase by 2020
- Men aged 65-69: 10% increase by 2020.

From 2020, economic activity rates are kept constant. The resulting economic activity rates profile is shown in Figure 6.

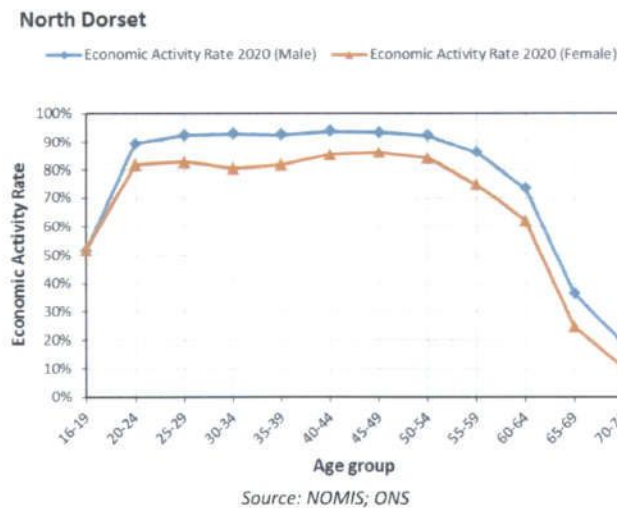


Figure 6: North Dorset - economic activity rates (2020)

Unemployment rates

The unemployment rate of 3.3% for North Dorset has been calculated as a 9-year average of unemployment statistics (age-groups 16+) for the period 2004-12 (sourced from NOMIS). The unemployment rate remains constant throughout the projection period.

Commuting ratio

Using statistics from the 2011 Census, a commuting ratio of 1.11 has been derived as the balance between the size of the resident labour force and the number of the jobs available in North Dorset. The ratio suggests that there is a net outflow of commuters from North Dorset. The commuting ratio is held constant throughout the projection period, except in the case of the 'Jobs-led (Experian) - BCR' scenario. This jobs-led scenario assumes a balanced commuting ratio ('CR'), whereby all new jobs created in the area are taken by residents of the area, rather than by inbound commuters.

Forecasting methodology

Forecasts have been developed using POPGROUP technology. Population projections delivered using POPGROUP use a standard cohort component methodology (the methodology used by the UK statistical agencies). The household projections use a standard household headship rate as employed by Department for Communities and Local Government (DCLG) for its household projection statistics. A more detailed description of the population and household projection methodologies is available from the User Guide and Reference Manual on the POPGROUP website⁴⁰.

The following diagrams (Figure 7 and Figure 8) provide a schematic illustration of the operation of the POPGROUP and Derived Forecast (household and labour force) methodologies.

⁴⁰ CCSR (2013), Manuals, www.ccsr.ac.uk/popgroup/about/manuals.html.

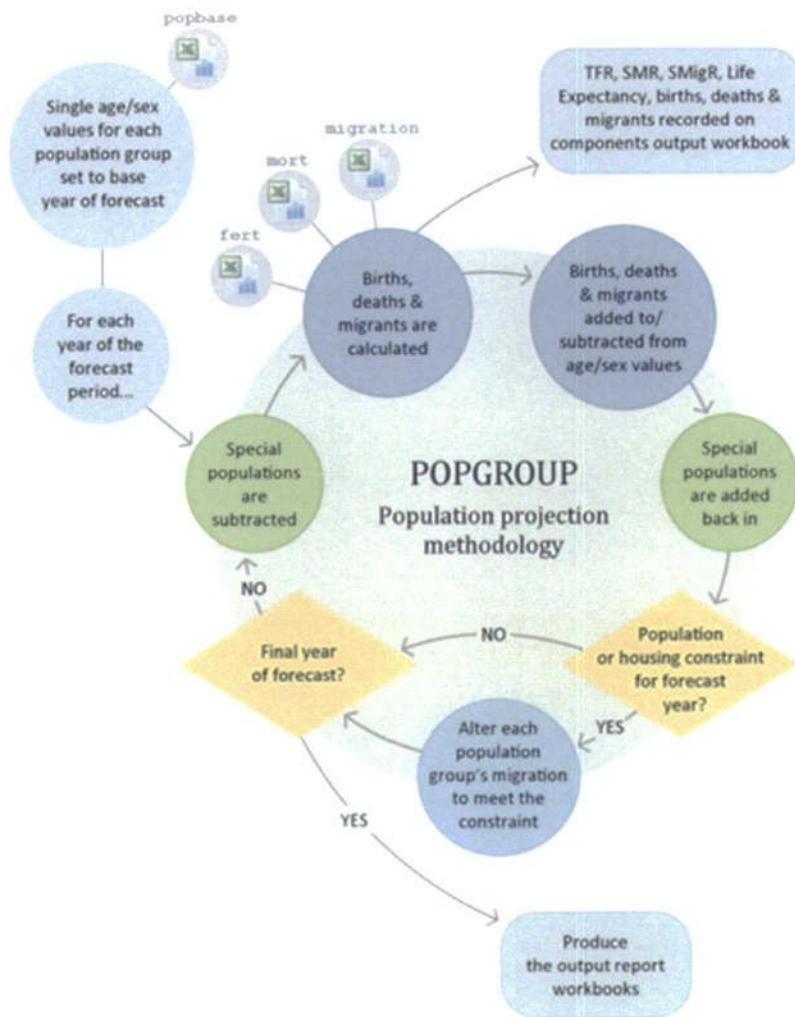
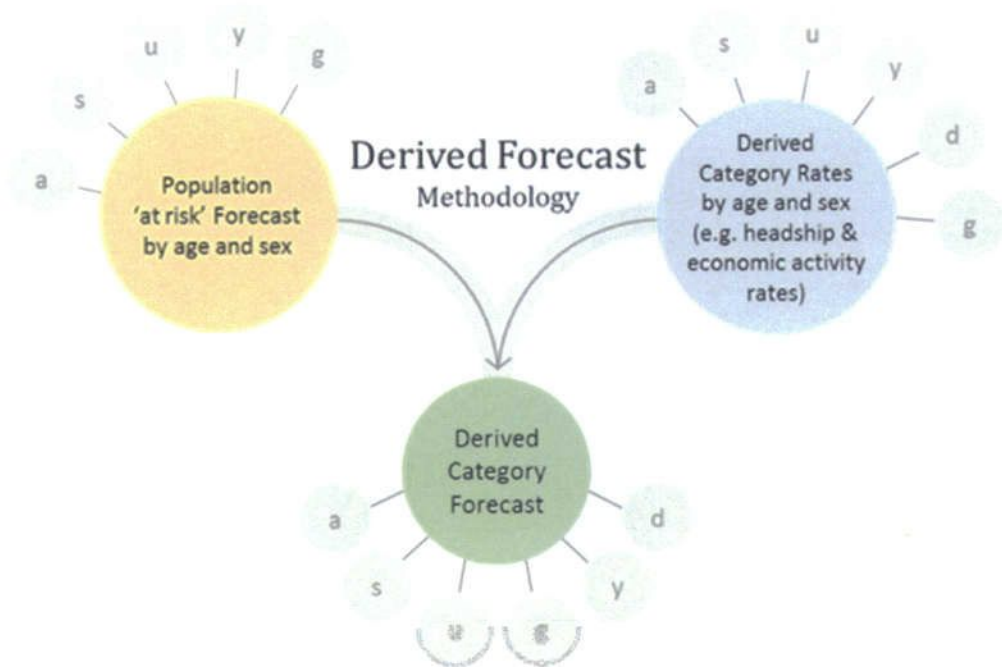


Figure 7: POPGROUP population projection methodology



$$D_{a,s,u,y,d,g} = \frac{P_{a,s,u,y,g} R_{a,s,u,y,d,g}}{100}$$

- D* Derived Category Forecast
- P* Population 'at risk' Forecast
- R* Derived Category Rates
- a* Age-group
- s* Sex
- u* Sub-population
- y* Year
- d* Derived category
- g* Group (usually an area, but can be an ethnic group or social group)

Figure 8: Derived Forecast Model: household & labour force projection methodology

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