

Housing affordability in the South West of England

Danielle Sinnett, Zaky Fouad, Katie McClymont, Hannah Hickman, Cat Loveday, Stephen Hall, Rebecca Windemer and Jessica Lamond

March 2023



**HOMES FOR THE
SOUTH WEST**

Contents

Executive summary.....	4
Factors that affect affordability in the South West.....	4
High house prices.....	4
Low earnings.....	5
Second homes and holiday lets.....	6
Migration.....	6
The impact of Right to Buy.....	6
The impact of national and local policy.....	7
Future affordable housing needs.....	8
Comparison with local authority assessments.....	8
Introduction.....	9
Our approach.....	11
Assessing housing affordability.....	11
Earnings data.....	12
House price data.....	12
Affordability ratio.....	12
Factors that impact housing affordability.....	12
Local authority survey.....	13
Expert interviews.....	13
Planning policy review.....	14
Assessing future affordable housing need.....	14
Limitations.....	15
Housing affordability in the South West.....	16
The South West compared to other English regions.....	16
Factors affecting housing affordability.....	19
High house prices and low earnings.....	19
Demand for housing versus supply.....	22
Competition for land.....	25
Impact of development viability.....	26
Impact of Right to Buy.....	29
Affordability in local authorities in the South West.....	32
Factors affecting the differences in housing affordability.....	38

High house prices and low earnings	38
Demand for housing versus supply.....	42
Barriers to delivery.....	48
Impact of variation in spatial factors	50
Right to Buy.....	59
How much affordable housing is needed?	61
How much housing is needed?	61
How much of this housing should be affordable?	66
How is affordable housing delivered?	69
How is affordable housing defined?	69
What do planning policies require?	71
Thresholds of affordable housing, types and tenures	71
Differentiation between urban and rural areas	72
Supplementary Planning Documents	72
Neighbourhood Plans	73
Opportunities for affordable housing.....	73
Types of affordable housing provision	75
Delivering high quality affordable homes.....	77
The importance of partnership and collaboration	79
Areas of innovation.....	80
Conclusions	82
References	83
Appendices.....	85
Affordability ratios	86
Private rent affordability.....	86
Mortgage repayment affordability	87
Agreement between the different measures	87
Workplace- and residence-based earnings	87
Footnotes	116

Executive summary

The South West faces acute problems of housing affordability. The region is conspicuously less affordable than England as a whole, and the North and Midlands in particular. These inter-regional disparities are becoming progressively more pronounced.

- The South West is the fourth least affordable region in England for all property types (after London, South East and the East of England). In 2021, median house prices were approximately ten times greater than the median earnings.
- The South West is becoming less affordable over time. In 1997, median house prices were approximately four times greater than the median earnings. Affordability ratios in the South West (plus London, South East and the East of England) continue to be above the English median, and the gap is widening.
- Three quarters (22 out of 29) of local authority areas in the South West have affordability ratios higher than that for England as a whole, and all have affordability ratios higher than those for the North East, North West, and Yorkshire and the Humber.
- There is substantial diversity in affordability ratios between local authority areas in the South West, varying from 7.3 in Plymouth (a ratio that is still higher than those for North East, North West, and Yorkshire and the Humber) to 15.8 in Cotswolds District.
- There is also substantial diversity in affordability ratios within local authority areas in the South West. The ten least affordable neighbourhoods in the South West have median house prices more than 28.3 times median earnings, these are in the Bath and North East Somerset, Cotswolds, Cornwall, Bournemouth, Christchurch and Poole. Even in the most affordable neighbourhoods of Plymouth and Gloucester median house prices are still more than three times median earnings.
- This is the first time that a granular assessment of affordability has been provided for the region, and it demonstrates the variation within local authorities. This is likely to be particularly important in larger, rural authorities where it might be more challenging to commute to home and other services.

Factors that affect affordability in the South West

High house prices

Property prices in the South West are markedly higher than England as a whole, and have risen nearly fourfold – faster than the national average rate of increase, and the North and Midlands regions in particular – in the past 25 years. Demand for new housing has exceeded supply. Developable land is scarce – due, in part to the South West’s high quality, protected natural environment – and subject to market premium prices that undermine the viability of affordable housing.

- The South West has the fourth highest median house prices of any English region (after London, South East and the East of England). In 2021, median house prices in the South West (£290k) were higher than in England as a whole (£285k). More than half (16 out of

29) local authority areas in the South West have median property prices higher than the England average.

- The South West experienced the fourth largest percentage increase in house prices of any region (384%) between 1997 and 2021 region (after London, South East and the East of England). In all local authority areas, the increase exceeded 300% and in some (e.g. Bristol) the increase surpassed 500%.
- The supply of new homes in the South West has not kept pace with demand. It is estimated that some 496,768 new households formed in the region between 1997 and 2021. This is the fourth fastest rate of growth of any English region (after London, South East and the East of England). In terms of housing supply, there was a substantial shortfall over this period, with only 429,990 homes being completed in the South West. This deficit of 66,978 homes, is smaller than that in London, the South East and the East of England, but greater than in the Midlands and the regions of the North.
- There are good examples of housing delivery across the region via effective collaboration between local players, motivated by similar aims to provide high quality, sustainable and affordable homes.
- The South West region is noted for its high quality natural environment. A substantial proportion of the region is designated as a National Park or Area of Outstanding Natural Beauty. This effectively precludes the possibility of development in many areas. As such, there is significant competition for developable land. Respondents report developers paying 125% of market value for consented sites, which reduces the viability of development in the region.

Low earnings

The housing affordability crisis in the South West is driven by a unique combination of higher than average property prices but also the lower than average earnings typical of sub-regional labour markets characterised by seasonal, low paid work in agriculture (rural communities) or tourism (coastal communities).

- The South West has the sixth lowest median individual earnings of any English region (exceeding only the North West, North East and Yorkshire and the Humber). In 2021, the median individual earnings in the South West (£29,080) was markedly lower than in England as a whole (£31,480). Only three (out of 29) local authority areas in the South West – Gloucestershire, Bristol and Tewkesbury – have median individual earnings higher than the England average.
- In 2021, Cotswold District had the highest median house price in the South West. However, it is ranked 23rd (out of 29) in the region for median individual earnings (£19,775), behind the median figure for all regions, including the North East. A similar disparity is observed for other local authority areas, including Cornwall, South Hams and Dorset.
- The South West experienced only the fifth largest percentage increase in median individual earnings (83.6%) between 1997 and 2021. In short, wage growth is not keeping up with house price increases.

- There is widespread recognition that often “affordable housing” is not affordable for those with the lowest earnings and many providers are unable to make development viable for social rented homes at the scale required.

Second homes and holiday lets

There is a paucity of comprehensive and consistent data on the impact of second homes and holiday lets. However, the plurality of qualitative data suggests very significant local impacts in terms of depletion of housing stock available to local people, an inflationary effect on local property prices, and seasonal impacts on local services due to the uneven nature of occupation.

- Some local authorities have undertaken studies of the impact of second homes and holiday lets using Council Tax returns. These estimate that the concentration of these tenures as a proportion of the total housing stock may be substantial.
- For example, in Cornwall the proportion of second homes in 2018 was estimated to be as high as 25% to 40% in tourist “hotspots” (e.g. Padstow and Polzeath, and Fowey, St Mawes, Looe and Torpoint) and, typically, 10% in other coastal areas.
- The largest concentrations of second homes are, typically, found in local authority areas with the highest shortfalls in housing delivery, e.g. Cornwall, Bournemouth, Christchurch and Poole.
- In addition to their inflationary effect on local housing markets, respondents reported that these properties are observed to have an adverse effect on school rolls and the sustainability of local business during ‘out of season’ periods.
- However, there is uncertainty regarding the extent of second homes and holiday lets and their impact.

Migration

The South West is the only English region in which in-migration is dominated by arrivals from elsewhere in the UK (as opposed to international migration). This suggests, perhaps, the existence of a distinctive residential “offer” in the region, one that attracts retirees, people working from home and those commuting to London and the South East.

- The South West has the second highest level of net in-migration of any English region (after the South East); a total of 370,878 people arriving between 2010 and 2021. In contrast, to the rest of the regions this migration was dominated by migration from other parts of the UK, rather than international migration.

The impact of Right to Buy

Housing providers in the South West report that Right to Buy has had a detrimental impact on housing affordability in the region, particularly in respect of its role in the depletion of the overall stock of affordable housing, and the difficulty of replacing units on a one-for-one basis. The impact of Right to Buy is observed to be particularly acute in small rural communities.

- The South West has experienced the lowest proportionate level of sales through Right to Buy of any region; 144,000 local authority-owned properties, some 5.6% of the total housing stock, have been sold since 1980, of which 77% of sales were conducted before 1997.
- Nevertheless, Right to Buy represents a significant depletion of the total affordable housing stock in the South West. In the period 1997 to 2021, some 33,220 local authority-owned homes were sold through Right to Buy, whereas local authorities in the South West delivered only 2,320 new homes.
- The impact of Right to Buy is felt particularly acutely in small rural communities where a handful of sales locally might equate to a high proportion of total stock and may be difficult to replace given the higher unit costs of construction on small rural sites. It is reported that the sale of properties in small villages has obliged local planning authorities to explore new development on rural exception sites.
- The viability and funding challenges make it difficult for local authorities and housing associations to replace social housing on a one-for-one basis.

The impact of national and local policy

Regional stakeholders were critical of the complexity created by multiple definitions of affordable housing but, more importantly, argued that these definitions do not equate to genuinely affordable housing in practical terms, given disparities between housing costs and earnings. There is reported to be an acute shortage of planning officers and the requisite planning skills in local authorities to process development proposals promptly.

- Housing providers in the South West reported that the principles of ‘affordability’ set out in, for example, the National Planning Policy Framework – or common housing products favoured by private developers such as shared ownership and affordable rent, typically providing discounts of 20% on open market provision – do not accurately reflect what households on low and medium typical incomes can afford.
- Local planning authority respondents expressed concern about the practicalities of maintaining a five-year land supply for housing, the need to demonstrate deliverability required by the National Planning Policy Framework, and the consequences of failing to do so (defaulting to a presumption in favour of sustainable development). These challenges were reported as having a direct impact on the provision of affordable housing, where the development of open market housing in rural localities was coming forward on potential exception sites, that might ideally have been secured for affordable housing.
- The under-resourcing of planning was identified as a significant impediment to timely decision-making and on-site delivery.
- Regional stakeholders, including private developers and housing association respondents, considered there to be growing imbalance between the increasing complexity of the planning system that requires specialist inputs (e.g. to meet biodiversity net gain, carbon neutrality requirements) and the shortage of local authority planners and paucity of planning skills retained in house by local authorities.

Future affordable housing needs

To meet projected household growth, a substantial increase in overall housing delivery is required and a much higher proportion of these new homes must be affordable. To eradicate the backlog of demand created by cumulative shortfalls in provision will require a development programme of a much higher order. This also assumes that new homes are purchased by these resident households and not as second homes or holiday lets.

- The difference between supply of new homes and household formation between 1997 and 2021 is 99,978 homes (greater than that suggested by the regional data), when this shortfall is adjusted by the annual affordability ratio the shortfall doubles to an estimated 200K homes across the South West.
- Modelling future demand, adjusted for affordability, suggests that around 28,337 homes need to be delivered in the region each year to 2039, of which around 17,282, or 60%, should be affordable.
- The proportion of affordable housing required is much greater than required in many planning policies, and will be difficult to achieve with the current constraints to development viability.

Comparison with local authority assessments

In most local authorities the assessments of housing need using the Government's 'standard method' or the local authority housing requirements in Local Plans will not address the shortfall in housing delivery between 1997 and 2021 within ten years.

- Only in Cotswold District and North Devon would this backlog be cleared within ten years. However, this does not consider new homes purchased as second homes or holiday lets.
- Using the Government's 'standard method', which caps the number of new homes required, it would take between one (Cotswold) and 126 (West Devon) years to clear the backlog of homes and maintain the required supply. Without the cap, this would fall to one (Cotswold) to 50 (Swindon) years.
- In half of local authorities, using the standard method would fail to deliver enough housing to clear the backlog of homes by 2039; by between 427 in Cornwall and 10,795 in Bournemouth, Christchurch and Poole. Again, this does not take into account homes purchased as second homes or holiday lets.
- To clear the backlog in 5 years an estimated 70,000 homes need to be built in the region each year for the next five years.

Introduction

The South West of England is one of the least affordable regions in the country. This report for Homes for the South West draws on Government data, a survey of local authorities and interviews with housing associations, local authorities and private developers to explore the affordability of housing in the region. First, we provide an overview of some of the analysis of housing affordability to date, before setting out the research questions for this study.

There is widespread agreement that the UK is facing an affordability crisis in housing. This has been reported in numerous studies over recent years. For example, in 2018 it was estimated that 4 million households were in housing need in England ([Bramley, 2018](#)) and in 2019 that 4.8 million households have an affordability problem ([Affordable Housing Commission, 2019](#)). These estimates are based on different types of housing need, including living in unaffordable, overcrowded or unsuitable housing, or housing in poor condition, homelessness, and concealed households ([Bramley, 2018](#); [Affordable Housing Commission, 2019](#)). Households with an affordability problem exist across the UK, in all regions and tenures. The Affordable Housing Commission (2019) suggested that of the 4.8 million households with an affordability problem, more than half are households with children, 2.9 million were struggling renters of working age, primarily in the private rental sector, 1 million were older households on a low income, and 0.9 million were struggling homeowners. Building on Bramley (2018), the [National Housing Federation \(2019\)](#) reported that social rent would be the most appropriate tenure for 2.1 million households in housing need in England, including 0.9 million households with affordability issues. However, these estimates focus on the existing backlog of housing need.

The Government has committed to delivering 300,000 new homes each year. However, a recent estimate suggests that 340,000 homes will be needed to clear the backlog over 15 years and keep up with demand for new housing ([Bramley, 2018](#)). This analysis suggests that these new homes should include 145,000 affordable homes – 90,000 as social rent, 35,000 as shared ownership and 25,000 as intermediate rent ([Bramley, 2018](#)). Although there is a pressing need for new housing, including affordable tenures, across the UK, there is an acute problem with the affordability of housing in the South West ([RTPI, 2017](#)), and the number of households with an affordability problem is increasing ([Padley et al., 2019](#)). Bramley (2018) estimated that 42,171 new homes need to be provided per year in the South West to clear the backlog over 15 years, and that this should include 14,860 (35%) affordable tenures – 8,340 social rent, 3,980 shared ownership and 2,540 intermediate rent. However, this affordability problem is not felt uniformly across the region. Those places that are closer to London and the South East (e.g. Bristol, Bath and Bournemouth) are less affordable than other parts of the region ([RTPI, 2017](#)).

Similarly, several reports have found that there is a particular problem with housing affordability in rural areas. In 2008, the Taylor Review of Rural Economy and Affordable Housing highlighted that substantial growth in rural areas, coupled with a lack of development in smaller settlements was leading to gentrification, with villages and hamlets becoming exclusive enclaves of retirees and wealthy commuters. This trend, they suggested,

was resulting in the loss of local services (e.g. schools) and local younger workers having to commute in from urban locations ([Taylor Review, 2008](#)). More recently, the RICS (2012) found that although rural housing is more expensive overall, the lack of entry level and social housing specifically was compounding affordability problems, pushing out younger households. More than half of the local authorities in the South West are rural so these challenges are likely to be prominent in the region.

In smaller settlements, the requirement for affordable housing is likely to be relatively modest, and so these places may be overlooked ([Taylor Review, 2008](#)) exacerbating the lack of affordability in rural areas. Large scale development in the South West was found to reduce house prices slightly and deliver more affordable homes ([RTPI, 2017](#)). There are also particular pressures in rural areas, including a planning system focussed on sustainable transport, resulting in a lack of housing delivery in areas with poor public transport connections, coupled with in-migration of commuters, retirees and home workers, competition with those purchasing second homes or holiday lets resulting in high house prices in areas with relatively low wages ([Taylor Review, 2008](#); [RICS, 2012](#)).

Interlinked with the constraints to supply of housing in rural areas, and the increased demand is the characteristics of these areas. Features including landscape designations, proximity to water, character properties, absence of environmental harms (e.g. air pollution) and presence of amenities (e.g. schools) make these desirable places to purchase a home, and are associated with higher house prices (Smith & Golland, 2005; [RICS, 2012](#)). Such characteristics are often highly localised in rural areas, therefore assessments of affordability at the level of local authority can often mask areas of low affordability and shortage of homes ([RTPI, 2017](#)). The rural authorities of the South West are characterised by many of these features, including high landscape quality and proximity to coastal and tourist hotspots. The local authorities also have a mix of settlements, including small hamlets, seaside towns, villages and market towns, so it is important to examine affordability at a scale smaller than the local authority.

We were commissioned by Homes for the South West to examine the factors affecting housing affordability in the region and provide an estimate of future housing needs. The specific research questions are:

1. What impact do the below factors have on the availability of affordable housing in the region?
 - high house prices
 - a low wage average compared to the rest of the UK
 - prevalence of second homes and holiday lets
 - inward/outward migration patterns (and associated demographic changes).
2. How is the national policy Right to Buy impacting shortages in affordable housing?
3. Which national and local policies have impacted on affordable housing?
4. How many people in the region will need affordable housing in the coming years?
5. Where possible to identify; how do these shortfalls match up to Local Authority assessments on housing need and demand planning?

Our approach

To answer research question 1, we analysed publicly available datasets to: study the **housing affordability in the South West in comparison to the other English regions**; explore **housing affordability in the local authorities in the South West**; explore **how affordability varies by different geographies in the South West**.

To answer questions 2 and 3 we reviewed planning policies, interviewed stakeholders and undertook an online survey of local authorities.

To answer questions 4 and 5 we used time series projections of affordability to calculate future housing need and then related this to mortgage affordability to estimate future affordable housing need.

Assessing housing affordability

Our approach was to use affordability ratios between house prices and earnings to examine trends and patterns in affordability across the South West. The choice to use affordability ratios was based on the availability of these data at a fine spatial resolution and over a long time period.

Alternative approaches to assessing affordability were considered and are discussed briefly here. Housing affordability can be measured through the relationship between house prices and the income of individuals or households, or the proportion of income spent on mortgage repayments or rent. These alternative methods for calculating housing affordability have their own advantages and disadvantages ([Padley et al., 2019](#)). The ratio of housing cost to income (i.e. what we have used in this study) is the most commonly used method, but it does not take into account the cost of living. Affordability ratios produced by the Government also rely on individual earnings, instead of household income, and do not consider other expenditures. Therefore, they do not provide an accurate picture of the affordability of housing. Another measure uses household income and the proportion of this income spent on rent or mortgage payments and assumes that households spending more than a certain proportion of their income on housing are facing an affordability problem. This is preferable to affordability ratios as household income provides a more accurate estimate at the household level than individual earnings and considers housing costs as opposed to house prices ([Padley et al., 2019](#)). Another method uses residual affordability, which considers affordability after basic needs, such as food, energy and transport ([Padley et al., 2019](#)), are met, but is more challenging to achieve with the available data. The Government does not provide regular estimates of household income, and those which are published are only available at the regional level. Similarly, estimates of household expenditure are not available at the same spatial resolution as affordability ratios.

Affordability ratios are the most complete Government dataset ([Office for National Statistics, 2022a](#)). The dataset includes median, bottom decile and low quartile house price and individual earnings data, the resultant affordability ratios at the regional and local authority level every year, from 1997 to 2021, as well as house price data for MSOAs

(around 6,000 people) and LSOAs (around 1,500 people). We explored the relationship between owner-occupier affordability ratios, and rent and mortgage payment affordability (see Appendix 1) and found a significant positive relationship, i.e. as one increased the others increased, between the three measures (all $p < 0.001$). We therefore elected to use affordability ratios to examine trends and patterns in affordability across the South West, as these data are available at a finer spatial resolution and over a longer time period, but relate this back to mortgage repayment affordability when considering future housing need.

Earnings data

There are two sets of earnings data published annually by the Office for National Statistics; workplace-based earnings and residence-based earnings ([Office for National Statistics, 2022a](#)), both of which are provided for median, lower quartile and bottom decile earnings. Workplace-based earnings (as opposed to residence-based earnings) reflect affordability in relation to the working age population and are appropriate when considering organic local demand. Our analysis showed that, in practice, there is very little difference between workplace-based and residence-based earnings (see Appendix 1), and we use workplace-based earnings for the remainder of this report.

House price data

The Office for National Statistics publish data annually, based on Land Registry data the median, lower quartile and bottom decile house prices for: (1) all dwellings; (2) existing dwellings; or (3) newly built dwellings for local authorities and MSOAs (Office for National Statistics, 2021). Each of these is further split into (i) detached houses; (ii) semi-detached houses; (iii) terrace houses; and (iv) flats and maisonettes (see Appendix 6 to Appendix 9). They also provide house price data for LSOAs, but this is only available for all dwellings, existing dwellings or newly built dwellings (i.e. not by housing type).

Affordability ratio

For regions and local authorities, the Office for National Statistics publish affordability ratios annually, by dividing house prices by annual earnings ([Office for National Statistics, 2022a](#)). We have also calculated the affordability ratios for MSOAs and LSOAs, using house prices for MSOAs or LSOAs and workplace-based annual earnings for the corresponding local authority. This is because annual individual earnings are only available for local authorities. Given that we are using workplace-based earnings the use of local authority data is appropriate.

Factors that impact housing affordability

Many of the local authorities in the South West are relatively large, and there is considerable spatial variation within them in terms of factors reported to affect house prices. We would therefore expect to see the housing affordability vary between the different neighbourhoods and parishes within the local authorities. To further explore question 1, we used the affordability ratios for the LSOAs to **explore how affordability**

varies by different geographies in the South West. We joined spatial data including proximity to the coastline, Areas of Outstanding Natural Beauty, National Parks, broadband connectivity, journey times to train stations and areas of employment, deprivation, and rural-urban classifications to the affordability ratios in a Geographical Information System. This provided a complete dataset of these spatial characteristics and affordability ratios for each LSOA in the region.

We used regression modelling to test whether there is a statistically significant difference in the affordability ratios between these places and to explore the extent to which these spatial factors, and the local authority, explain the variation in affordability ratios. These analyses were all conducted in SPSS v.28.0.1.0.

The observed patterns and trends in earnings, house price and affordability ratios are also discussed in relation to data related to the supply of, and demand for, new homes, including household formation, immigration, housing completions, sales of homes under Right to Buy, second home ownership, local authority housing waiting lists and housing targets.

Local authority survey

Some of the research questions, particularly questions 2 and 3 require an approach that allows a more in-depth analysis. For example, the flexibility afforded to local authorities particularly in relation to the use of Right to Buy receipts and because practice appears geographically variable ([CRESR, 2015](#)) means that a qualitative approach will provide additional insights to relying on quantitative data only. We therefore conducted a short online survey, during April and May 2022, using Qualtrics, of all local authorities in the South West. The purpose was to invite each local authority to share their experiences of housing affordability within their local area, including the most significant factors in their area, and the governance and their perceived levels of success in making the case for affordable housing funding. The survey was sent to housing and/or planning officers in every local authority in the South West. In total 16 local authorities responded out of 31 local authorities in the region.

Expert interviews

Following the survey, we undertook eight online semi-structured interviews, each lasting 45 minutes to one hour, with local authority officers (via MS Teams in June and July 2022). These were all respondents to the local authority survey who had indicated their willingness to be interviewed. The majority of respondents were officers working in housing-enabling capacities in the council, the remainder were planning officers.

We also interviewed those working for housing associations and housebuilders in the region, to provide further in-depth analysis on the factors that affect the affordability of housing and how affordable housing is delivered in the South West. We undertook eleven semi-structured interviews, lasting at least one hour: six with chief executives or development directors (or equivalent) from a range of social housing providers and five with planning directors (or equivalent) from a range of housebuilders. All organisations were

active in the South West, and included smaller housing associations and housebuilders operating in the region, to those active on a wider scale and spanning regional boundaries.

Planning policy review

We also carried out a review of all local authority planning policies related to affordable housing in the South West. This was to explore the different definitions of affordable housing used in the region, the mechanisms for its delivery in new developments, and the types and mix of affordable housing required in policy. The policies reviewed included Local Plans, Core Strategies, Supplementary Planning Documents and a sample of Neighbourhood Plans.

Assessing future affordable housing need

To assess future housing need (questions 4 and 5) we projected house price data and annual earnings data for each local authority in the South West to create median and lower quartile projected affordability ratios. Our affordability projections were based on data (as described above) from 1997 to 2021, which were used to predict lower quartile and median house prices and annual earnings to 2039 (see Appendix 2 for the detailed method). We then used these to calculate predicted median housing affordability ratios.

We calculated the annual housing requirement using the Government's '[standard method](#)' (MHCLG, 2019; see below), the 2021 affordability ratios and the future predicted affordability ratios to explore how housing requirements between 2022 and 2039 (the last year of the 2014 household projections) vary between these methods. We also estimated the backlog of homes from 1997 to 2021 by calculating the difference between housing completions (i.e. supply) and projected household formations (i.e. demand) over this period. We then used the resulting housing requirements from 2022, and the backlog of homes, to calculate the number of new homes that are needed in each local authority between 2022 and 2039.

The Government's '[standard method](#)' for calculating housing need relies on the ONS household projections (2014) with an adjustment applied to household growth based on the affordability ratio in the local authority (MHCLG, 2019). After adjustment for affordability a cap of 40% is then applied above either the housing growth or the policy requirement, depending on the age of the policy. In addition, a 35% uplift is also then applied to some urban areas; in the South West this is applied to Bristol and Plymouth.

To estimate the number of homes required in the future we first converted projected individual earnings data into future household income using the ratio between each decile of household income and median earnings between 2011 and 2018 ([Office for National Statistics, 2020](#)). We used these ratios to estimate the future household incomes for each decile and local authority from the predicted individual earnings between 2022 and 2043.

Using the predicted house prices and the estimated future household incomes, we calculated the proportion of new households in each decile of income that would need to spend more than 40% of their monthly income on mortgage repayments, assuming a 10%

deposit, a 25 year term and the 2021 interest rate. We did this for both median- and lower quartile-priced homes. This allowed us to estimate the proportion of new households, at each income decile, that would experience an affordability problem for both median and lower quartile homes, and therefore the proportion of new homes that would need to be affordable at these two price brackets in each local authority for each year.

Limitations

There are several limitations to the method we have used, many of which are due to the availability of data. As detailed above, it would have been preferable to calculate affordability based on typical household incomes and expenditure for other goods and services, but these data are not easily available at the granular level required in this study. For some local authorities this may have been less significant, but for others there may be substantial variation, for example, due to higher transport costs and seasonal employment across an area. As explained in Appendix 1 we found a strong correlation between affordability ratios and the proportion of income spent on mortgage payments, providing some reassurance that spatial variation in affordability follows a similar pattern. Related to this, we also only considered affordability based on house prices rather than considering the affordability of other tenures. Again, this decision was driven by the availability of data, and Appendix 1 demonstrates a strong correlation between the proportion of income spent on private rent and mortgages, again providing some reassurance.

We have based our assessment of need on a fairly crude estimate of the difference between estimated demand and supply between 1997 and 2021, coupled with projected household formation from 2022 to 2039. This is less sophisticated than previous estimates which consider factors like homelessness, overcrowding and housing condition. This was in part due to the time constraints for the research, as well as a lack of Census data since 2011.

The forecasting of house prices and earnings based on the period 1997 to 2021 is also likely to have a relatively high margin of error. House prices are cyclical ([Gray, 2021](#)) and therefore any model predicting prices following a period of sustained growth may have a low degree of confidence. Similarly, we based our mortgage affordability calculations on July 2022 interest rates, which increased in the subsequent months; this means that the numbers of households with an affordability problem in the future may be much greater than we estimated. The forecasted house prices and earnings were used to calculate affordability ratios, which were then used to estimate need. However, if the supply of housing was increased we might expect that prices would decline ([RTPI, 2017](#)) and this would in turn reduce these affordability ratios. Conversely, in areas with a high demand for second homes and holiday lets, estimates of housing need may underestimate this demand, which could negate any impact of additional housebuilding.

The lack of granular data on second homes meant that we could not consider the impact of this variable within the model. Similarly, the lack of time series data for some of the variables over the 1997 to 2021 period meant that we could not assess whether these factors have changed in their significance over time. This may be particularly important for factors such as digital and transport connectivity, deprivation and second home ownership.

Housing affordability in the South West

In this chapter we present the findings from the secondary data analysis supplemented with insights from the local authority survey and interviews with stakeholders. First, we examine how the affordability of housing in the South West region as a whole compares with the other English regions and explore some of the explanatory factors that contribute to this. Next, we explore the variation in housing affordability in the South West region, both between and within individual local authority areas to provide a finer grain of analysis than previously available. In this section we also provide analysis and commentary from the stakeholders of some of the factors that contribute to this variability. Finally, we set out some insights as to how affordable housing is currently delivered in the South West, and potential areas for change.

The South West compared to other English regions

To explore the affordability of housing in the South West, we first present the Office for National Statistics data at a regional level, comparing the situation in the South West with the other English regions.

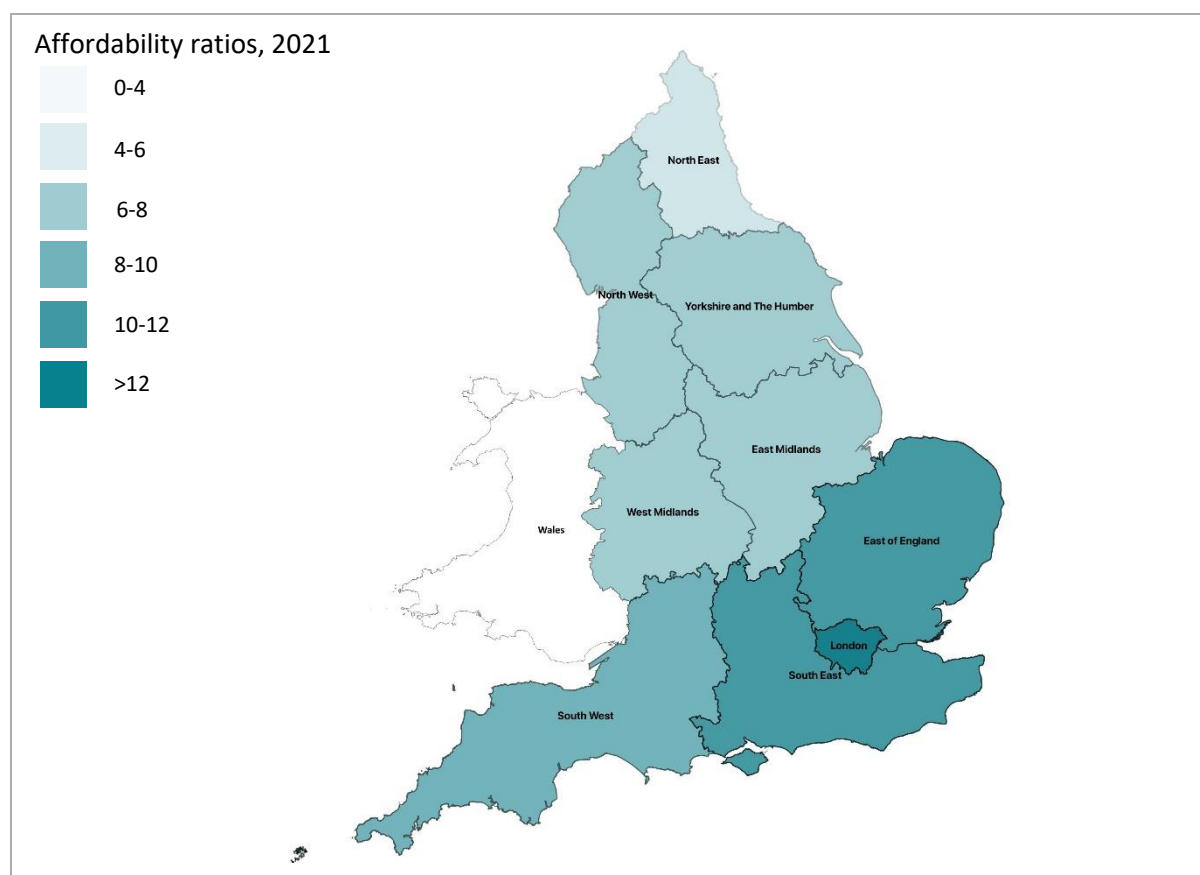


Figure 1. Affordability ratios in 2021 across English regions (Source: Office for National Statistics¹ licensed under the Open Government License v.3.0. Contains OS data ©Crown copyright and database right 2022 ©OpenStreetMap).

In 2021, the South West was the fourth least affordable region in England (Figure 1), with an affordability ratio of 10.0. The affordability ratios (Figure 2) show that since 1997, the gap in affordability ratios between the English regions has widened. Affordability has worsened everywhere across England, but the change is more modest in the North West, North East, and Yorkshire and The Humber, where affordability ratios have increased from around 3 to between 5.5 and 6.4 (Figure 2) than in the South. In London, the South East, East of England and South West affordability ratios have increased substantially, from around 4 to between 10 and 13. This means that affordability ratios in these four regions continue to be above the English median and the gap is widening. The largest increase in affordability ratios happened between 1997 and 2004, coinciding with low interest rates and availability of mortgages, followed by a dip during the 2007 to 2009 crash and an uptick between 2020 and 2021.

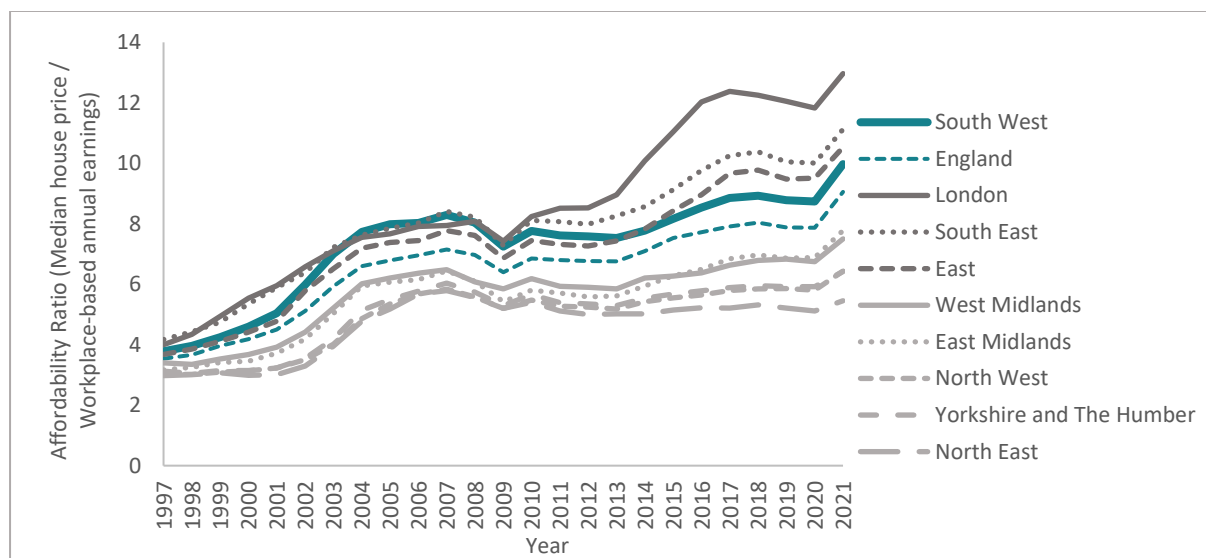


Figure 2. Affordability ratios 1997-2021 based on median house price and median workplace-based annual earnings (Data source: Office for National Statistics² licensed under the Open Government Licence v.3.0).

Patterns between regions are similar but not identical across housing types. Across England, detached homes are the least affordable and flats/maisonettes are the most affordable (Figure 3). **What is notable is that the South West moves to the third least affordable region, after London and the South West for detached houses**, which had an affordability ratio of 14.1 in 2021. The South West remains the fourth least affordable region, after London, South East and East of England for semi-detached houses, terraced houses and flat/maisonettes, with affordability ratios of 9.4, 8.1 and 6.4, respectively, in 2021. The South West is above the England median for all property types, with the exception of flats/maisonettes, which are skewed by the number of high cost flats in London. The gap in affordability across all housing types between the South West and the regions in the Midlands and North of England has also widened since 1997 (Figure 3).

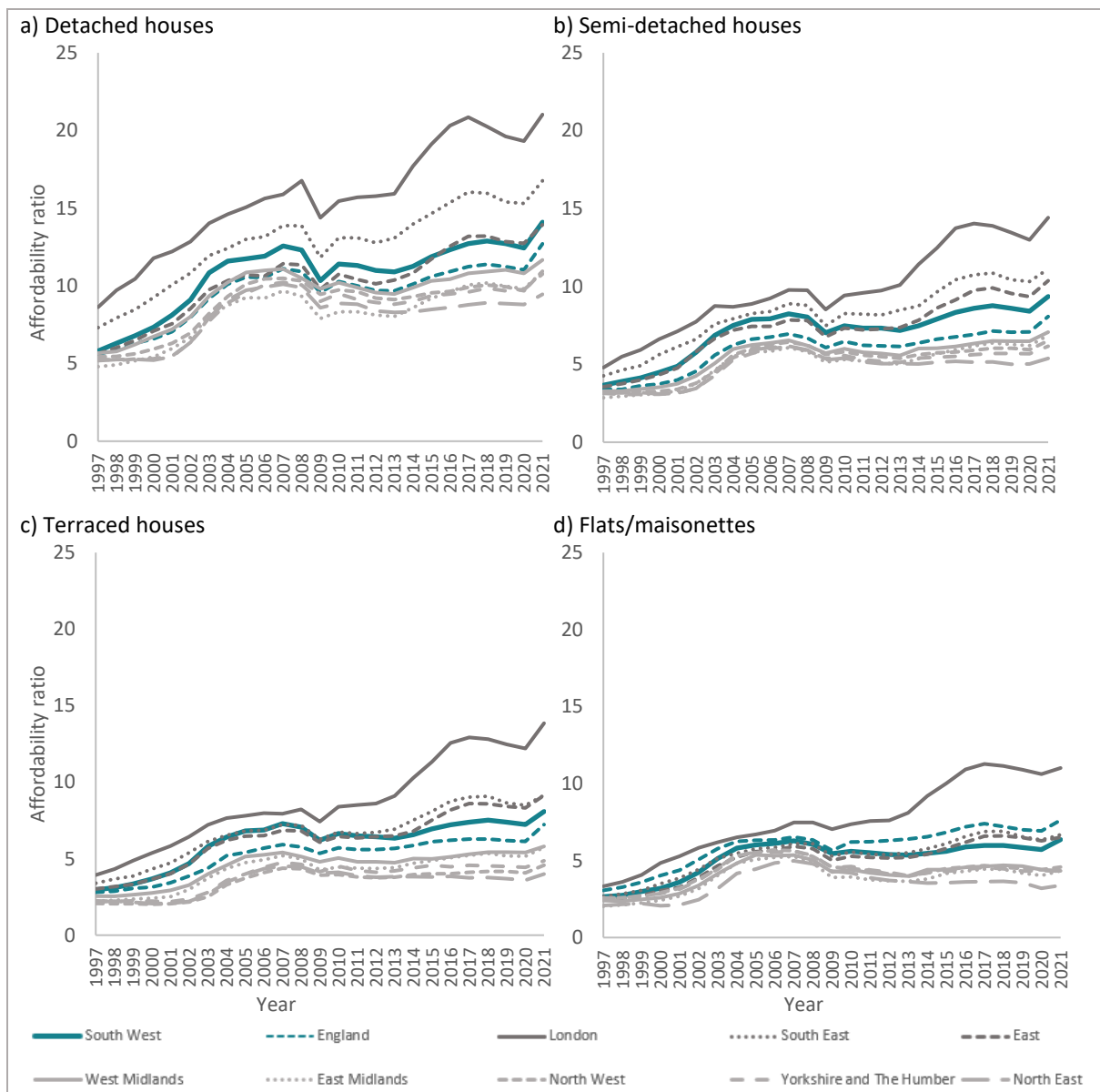


Figure 3. Affordability ratios 1997-2021 based on median house price and median workplace-based annual earnings for a) detached houses, b) semi-detached houses, c) terraced houses and d) flats or maisonettes (Data source: Office for National Statistics³ licensed under the Open Government Licence v.3.0).

In all regions, new builds are more expensive than existing properties, resulting in these being less affordable. Since 1997, the affordability ratios for new builds have seen larger increases than in existing homes, particularly since 2009. The greatest difference in 2021 was the North East, where the affordability ratio for new builds was 8.5 compared with 5.3 for older homes. The South West remains the fourth least affordable region in England irrespective of whether properties are existing or newly-built (Figure 4). Interestingly, the South West had one of the smallest differences between affordability ratios for existing (10.0) and newly-built (10.7) properties.

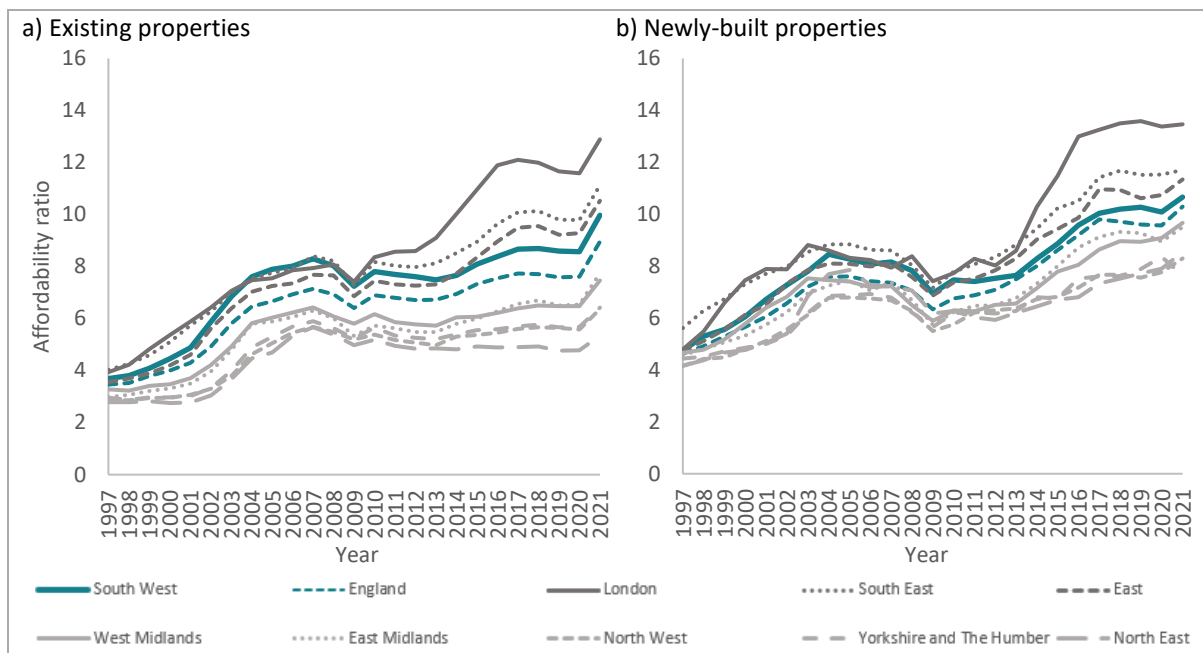


Figure 4. Affordability ratios 1997-2021 based on median house price and median workplace-based annual earnings for a) existing and b) newly built properties (Data source: Office for National Statistics⁴ licensed under the Open Government Licence v.3.0).

Worsening affordability across the region was also noted by local authority officers responding to the survey. The vast majority (94%) reported that housing affordability is getting worse; the remaining respondent stated it had remained the same.

In summary, it is clear that the South West has, over the last 25 years, become substantially less affordable than the Midlands and North of England. Next, we turn to some of the factors that affect affordability of housing, again comparing the picture in the South West with other English regions.

Factors affecting housing affordability

High house prices and low earnings

There are two reasons for the high affordability ratios in the South West. The first is that **the region has relatively high house prices, the second is the low earnings compared with other regions**. Whilst the median house prices in the South West remain fourth highest in England, again after London, South East and the East of England, the annual earnings are comparatively lower. Median house prices in 2021 in the South West were similar to England as a whole at £290K compared with £285K. Median annual earnings, however, are lower in the South West at £29,080 compared with the England figure of £31,480, putting the region in sixth place in 2021, behind London, South East, East, West Midlands and the North West (Figure 5). This may be a temporary effect due to the Covid-19 Pandemic as prior to this, median earnings in the South West were in fourth place, and on a par with the Midlands. The Annual Survey of Hours and Earnings (ASHE) data used to compile the annual

earnings, collects PAYE earnings in April from a 1% sample ([Office for National Statistics, 2018](#)). It does not, therefore, record earnings from seasonal work, self-employed or armed forces. Due to the high levels of seasonal work associated with tourism in the South West it may, therefore, overestimate earnings in the region.

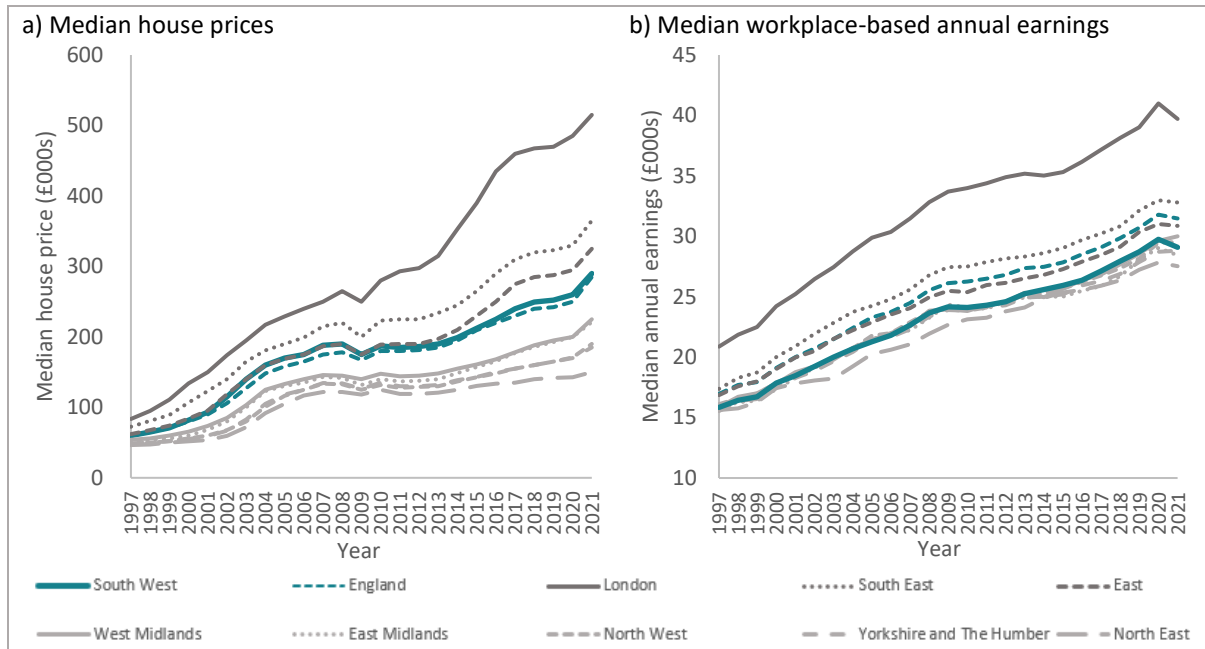


Figure 5. a) Median house prices and b) median annual workplace-based earnings 1997-2021 (Data source: Office for National Statistics⁵ licensed under the Open Government Licence v.3.0).

Looking at percentage change since 1997, we can see that affordability ratios in the South West have seen similar percentage changes to those in South East (Figure 6). When we look at these percentage changes in terms of house prices we can see that, again the South West has the fourth largest percentage increase in house prices between 1997 and 2021 at 384%, but the only the fifth largest percentage increase in annual earnings at 83.6% only slightly ahead of the North West (83.3%) and East of England (83.1%). **It is therefore clear that wage growth is not keeping up with house price increases, and it is this that is driving the high affordability ratios.**

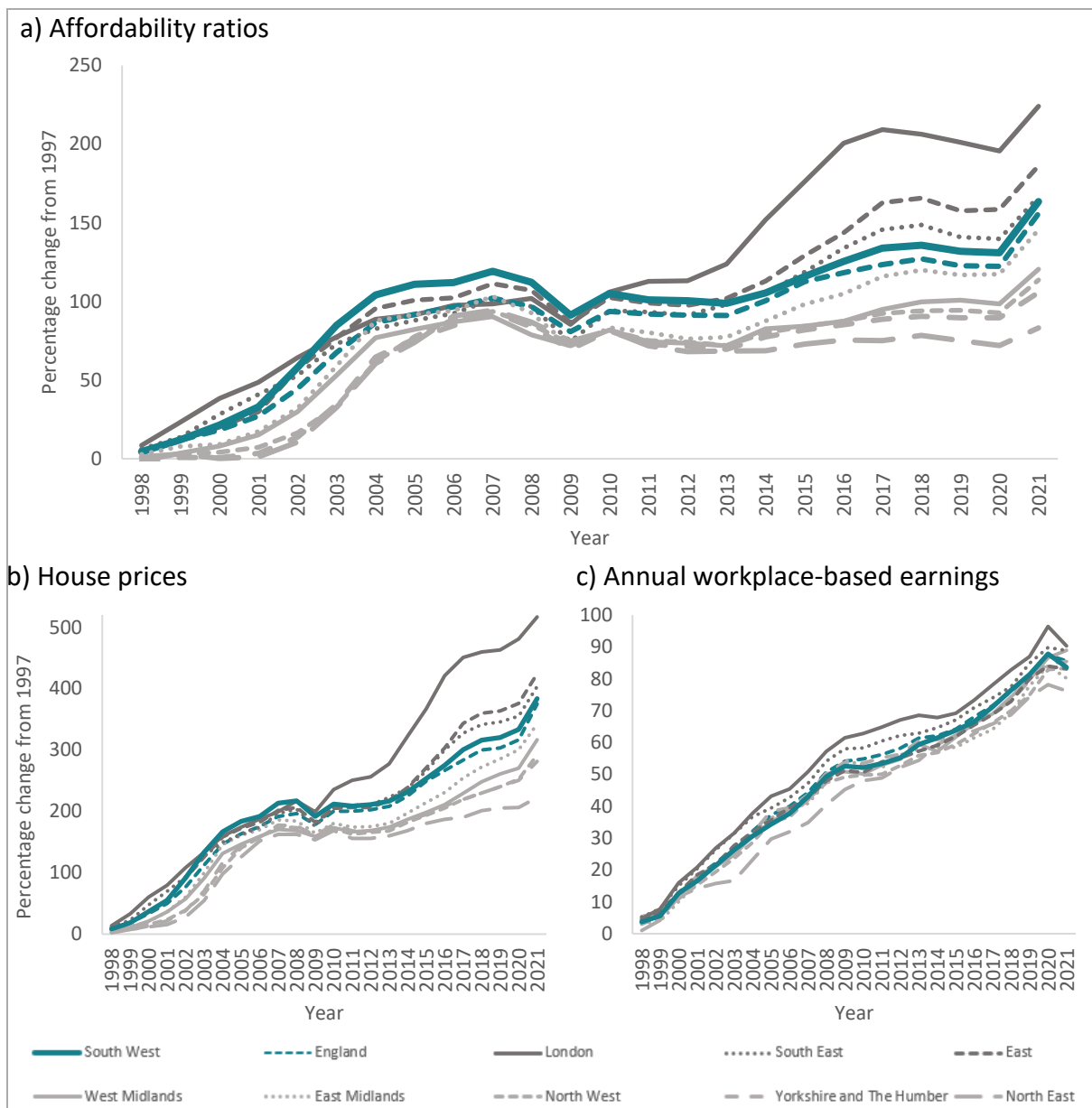


Figure 6. Percentage change since 1997 in a) median affordability ratios, b) median house prices and c) median annual workplace-based earnings 1998-2021 (Calculated from: Office for National Statistics⁶ licensed under the Open Government Licence v.3.0).

Local authority and housing association respondents recognised this issue in their areas. For example, one local authority officer commented in the survey that house price increases were double wage increases over the last 10 years: *“Median house prices have increased by 59% [since 2011]... This dramatic increase in house prices has far outpaced equivalent median earnings, which have only risen by 26%”*. Moreover, the relative increase was described as being the highest in the lower price quartiles (see below), making the impact even more profound for those on lower incomes: *“Equally, lower quartile house prices have risen by 53% since 2011... By comparison, lower quartile wages have only increased by 16% over this period”*. This is compounded by the increases in the cost of living, which have become more acute since these interviews. In addition, participants from housing

associations highlighted perceived inadequacies in infrastructure and accessibility to employment opportunities that contributed to maintaining the low wage economy in the region.

Demand for housing versus supply

A key cause of high house prices in the region is the failure of supply to keep pace with demand in recent decades. Household formation data from the ONS demonstrates that the demand for housing over the period from 1997 to 2021 has remained relatively high in the South West (Figure 7). Over this period a total of 496,768 new households were projected to be formed in the South West, an average of nearly 20,000 per year. As with the affordability, this puts the South West at fourth place, behind London, South East and East of England.

When this is considered alongside housing supply, we can see that **there is a substantial shortfall in housing delivery over this period**, with only 429,990 homes being completed in the South West. This shortfall of 66,978 homes, is smaller than that in other southern regions, but greater than the Midlands and North of England (Figure 7).

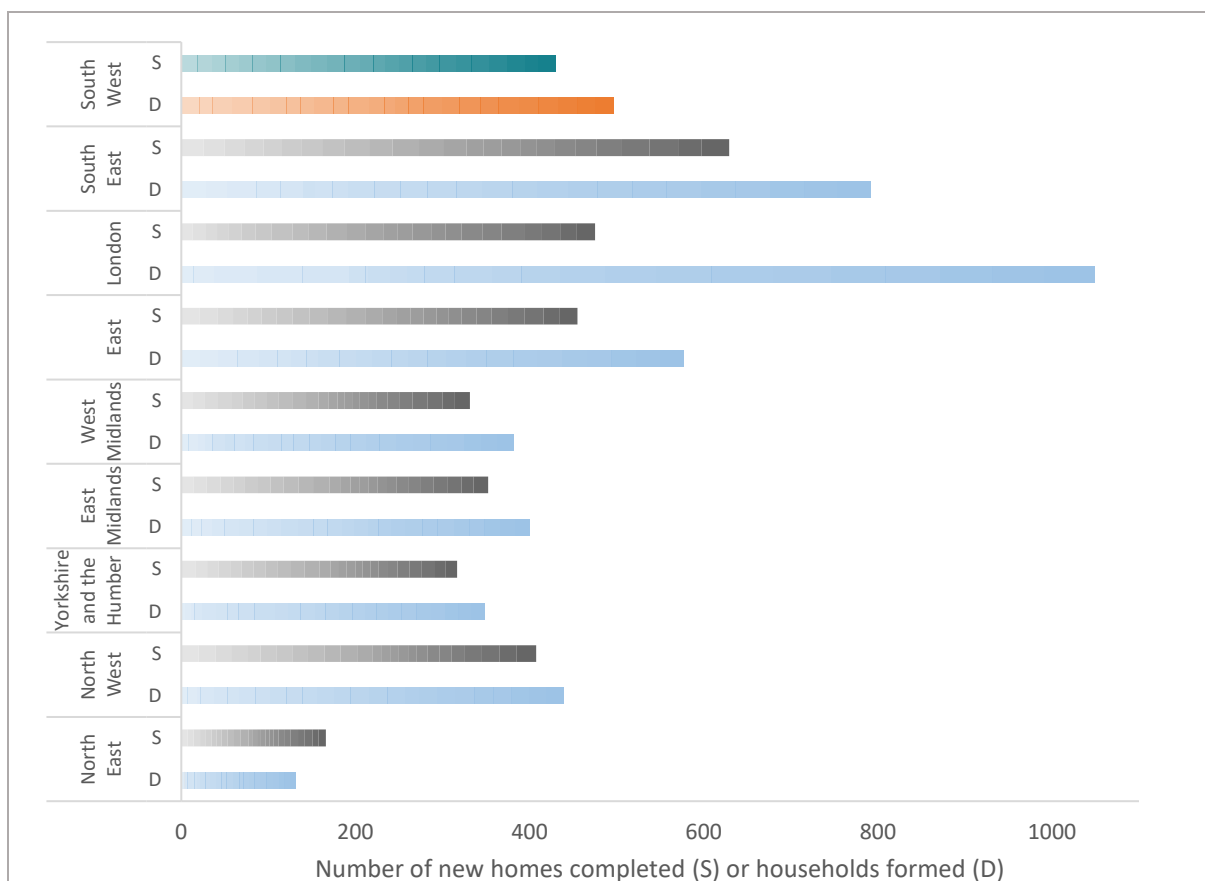


Figure 7. Number of homes completed (S=supply) and households formed (D=demand) 1997-2021 (Calculated from: Ministry of Housing, Communities and Local Government and Office for National Statistics⁷ licensed under the Open Government Licence v.3.0).

The Government's '[standard method](#)' (MHCLG, 2019) for calculating housing need provides an 'affordability adjustment' when the affordability ratio exceeds four (i.e. when house prices are more than four times earnings). In the South West the affordability ratio has exceeded four since 1999, in contrast in the North East the affordability ratio did not exceed four until 2004. **Adjusting the projected household formations, which include migration, for the annual affordability ratios suggests an even greater shortfall of 170,539 homes over 1997 to 2021**; lower than the other southern regions, but more than double the shortfall in the next highest region, the West Midlands (Figure 8).

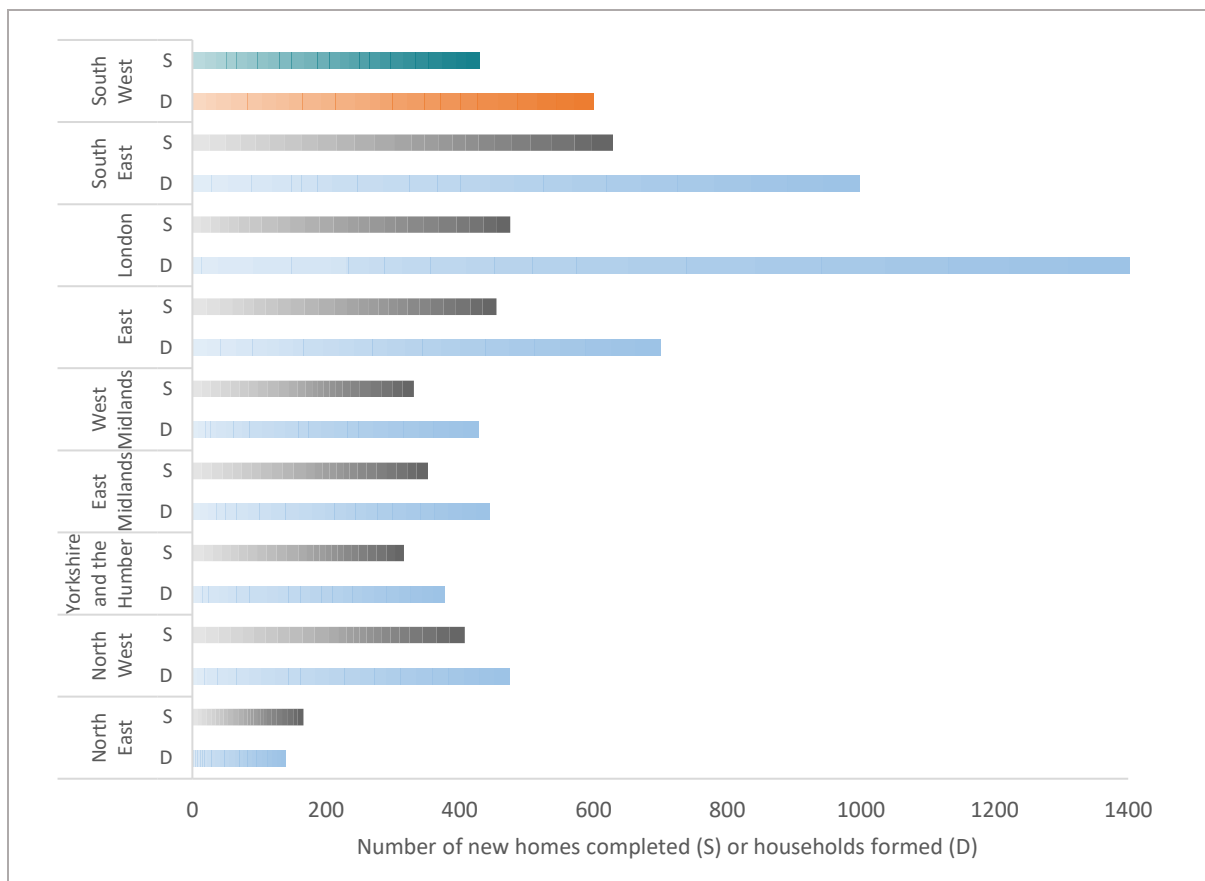


Figure 8. Number of homes completed (S=supply) and households formed, adjusted for affordability (D=demand) 1997-2021 (Calculated from: Ministry of Housing, Communities and Local Government and Office for National Statistics⁸ licensed under the Open Government Licence v.3.0).

As well as the demand for housing from population growth, the South West has substantial migration compared with the other English regions (Figure 9), second only to the South East. Between 2010 and 2021 there was a net migration of 370,878 people. In contrast, to the rest of the regions **this migration was dominated by migration from other parts of the UK, rather than international migration** (Figure 10). This potentially suggests a different market for homes, for example, from retirees or those able to work from home in addition to those able to commute from the areas closest to the South East and London. It also suggests that

changes in international migration, for example due to Brexit, may have less of an impact in the region.

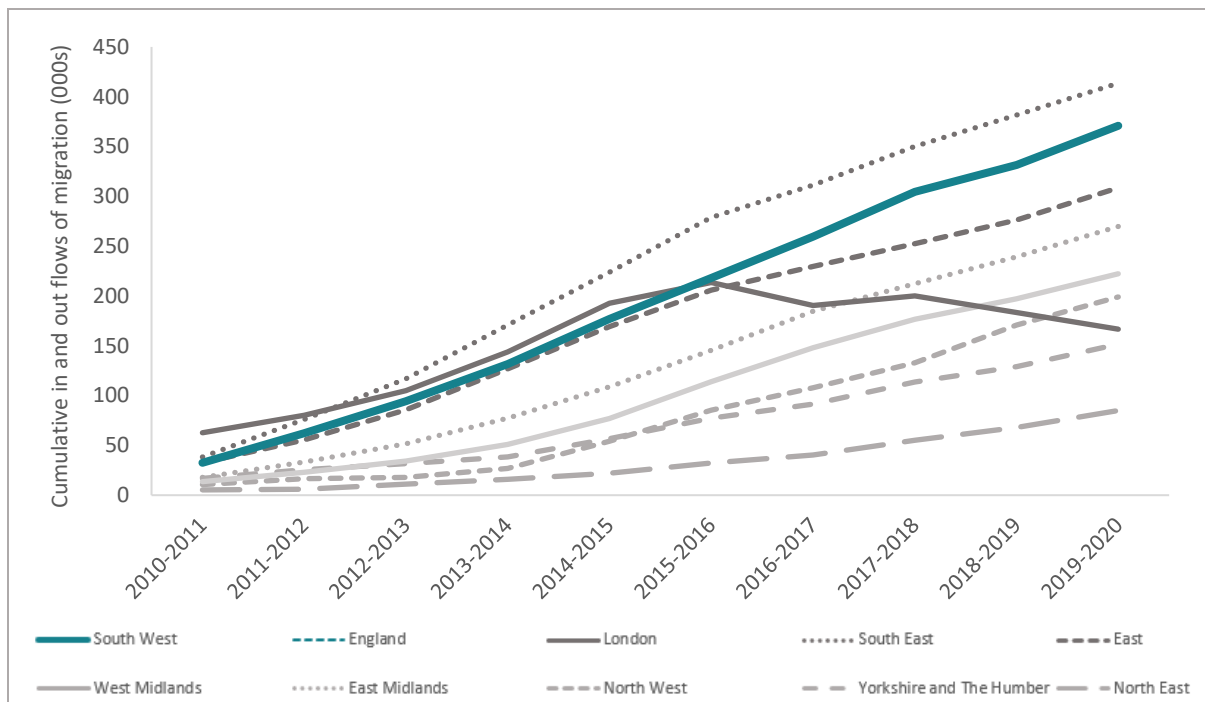


Figure 9. Cumulative total migration in the regions between 2010 and 2020 (Calculated from: Office for National Statistics⁹ licensed under the Open Government Licence v.3.0).



Figure 10. Net annual international and internal (i.e. within the UK) migration in the regions between 2010 and 2020 (Calculated from: Office for National Statistics¹⁰ licensed under the Open Government Licence v.3.0).

Competition for land

This disparity between demand for homes and supply of new housing has resulted in the South West's housing market being, as one housebuilder states "very hot". All those we interviewed described the South West's housing market as being highly competitive, with several highlighting the region as having seen the biggest house price increases in England in recent months.

A shortage of developable land in the South West and therefore the highly competitive process of bidding for sites was widely cited as having inflated land prices, and therefore house prices. Although not necessarily a new problem, there was a sense that this has worsened over time: *"There's always been a shortage of land, it's just really acute these days."*

Local authority respondents expressed concern about the practicalities of maintaining a five-year land supply for housing and the problems of failing to do so, especially given the Government's requirements to demonstrate deliverability. This focus on deliverability was seen as having a direct impact on the provision of affordable housing, where the provision of open market housing in rural localities are coming forward as exception sites, where previously they may have secured for affordable housing:

"The way that the planning system works is that you have to have a five-year land supply, and it's not that you you've just granted, it's not that you've earmarked 5 five years of supply of housing land, there's a very draconian test for whether or not you can treat that as being deliverable. The way that the Planning Inspectorate has tended to interpret that is, basically there has to be certainty that those houses will be built, so it's very hard for councils to show a five-year land supply under that that regime. Now, I know that that those tests have been to meet the Government's stated objective of boosting the supply of housing ... but, in my experience, the way that has worked is that house builders have ignored the difficult to do brownfield sites, so more greenfield housing has been provided only a small amount of which is a full affordable".

"We have had countless issues with the five-year land supply which changes on a daily basis and we've had no five year land supply for quite a while now ... and it means that stuff's coming in and should be treated as exception sites where it's 100% affordable housing with only small numbers of open market to help with the costs ... and people are getting away ... with 30% or less. So, we're losing what would normally be affordable".

The competition for land and resulting overpayment of land by housebuilders and housing associations was raised by several interviewees: *"RSLs [Registered Social Landlords] are competing with one another, and with housebuilders, the effect of which is to inflate the cost of land.* Some (although not all) housing associations suggested that the amount of capital they have available to deploy has enabled them to be increasingly competitive in the land market, competing with major housebuilders as well as other registered providers. Similarly,

one housebuilder noted: *“The common perception at the moment is that to secure a consented site you have to pay 125% of open market value just because people are desperate for consented land.”*

Added to this, some housebuilders suggested that new players were entering the market in the South West because they could see the potential for profit, leading to a further increase in competition. There was also a suggestion that some volume housebuilders are pursuing development opportunities on smaller sites that they would have previously discounted, creating additional competition for those that would normally build at a smaller scale including housing associations and SMEs. Similarly, areas with a previously weaker market, that were previously viewed as ‘no-go’ areas are now being considered by housebuilders as land can be acquired at a cheaper price to deliver housing:

“There’s nowhere we can’t build anymore, you know and there’s not even any sites where we can’t sell apartments anymore. You know, it used to be if you were building in a village in the countryside, you’d never dream of building apartments, but now you can.”

Housing association interviewees also noted the consequential impacts that access to cash, and a requirement for pay-back over the longer term, may have on land pricing:

“strategic partnerships with Homes England on funding has led to huge allocations that need to be populated by land and build ... so that increases RP [Registered Provider] to RP peer competition, that pushes up prices and that means you enter it in the same scale and price point as some developers and sometimes the PLC developers.”

Despite this competition, *“the spirit of collaboration over competition”* was highlighted as an important driver of housing associations’ behaviour in particular.

Housebuilders also commented that the needs of the social housing sector is further adding to the competitiveness of the market, with housing associations bidding on the open market for sites to develop as 100% affordable housing schemes. On the other hand, some local authority respondents suggested that land is too expensive for them to purchase for affordable housing.

Housebuilders explained the need to find the sweet spot between low unemployment, highways, and land supply:

“Better selling areas – it’s not rocket science ... but what we are finding at the minute though is the absolute state of the planning system and the shortage of housing sites coming through. The entire housing industry is at the point where nobody can be particularly selective in choosing.”

Impact of development viability

This overpayment of land was frequently cited as leading to potential challenges in terms of site viability for housebuilders: *“the land market is very, very competitive at the moment and*

I think people are overpaying for land and then perhaps struggling to make it work when they get on site."

Local authority respondents also highlighted that this is coupled with the increasing costs of housing construction due to the rising costs labour and material inputs. In addition, the practical and financial limits on some sites, for example, brownfield land requiring remediation was also affecting viability. As one housebuilder noted: *"You know you've got to push your prices and reduce your costs."*

A smaller scale developer explained that it is increasingly difficult for SMEs to compete with the larger national firms on the open market as the build costs for smaller housebuilders are higher. One way that smaller scale companies are overcoming this is by going through the process of land promotion and allocation. However, the interviews also revealed that some larger companies are opting to undertake strategic land allocation as well as buying land with planning permission attached. Here, some players were critical about the role of land agents and their impact on the land market, suggesting that engaging in strategic land allocation directly was a way of potentially reducing costs.

The increasing cost of materials appears to be an ongoing problem, adding further challenges to viability. As one housebuilder commented: *"We've seen 50% increase on build [costs] in the last 12 to 18 months. It's crazy."* The cause of this increase has been linked to shortages across a range of materials, compounded by the particular supply chain challenges of the South West around the transportation of materials: *"There was an issue with bricks at one point and all the PLCs were stockpiling bricks."*

These higher build costs, because of *"significant supply chain issues"* and insufficient access to labour, were noted as a particular issue in Cornwall: *"we asked nine companies if they were interested in tendering [for a build] and only two of them accepted."*

In response, some of the larger housebuilders are beginning to respond to supply chain issues by developing their own materials provision:

"They're starting to realize that they can make more money by building their own windows or building their own bricks or building their own rooftiles. So where offsite and innovation can be helpful for house builders it's really then very easy to vertically integrate the houses and the supply chain, which can be making more money."

The supply chain issues also jeopardise funding, further compounding problems with viability. This has a direct impact on the delivery of affordable housing. In some cases, delaying bringing sites forward for development, as one housing association explained *"we simply couldn't make the viability work on one site"*.

All housing associations explained the scrutiny that is applied to the affordability and viability of every site, taking into account the average salary and rents of the area. It was noted that where there is better value for money and better efficiency, this might not align with where affordability challenges are the greatest. *"it's hugely expensive to deliver in some areas, and therefore there's a reason why certain geographies don't benefit from growth or investment because the economics just don't work"*.

Local authority respondents noted that the specific tenure mix proposed on a site had a significant influence on viability, with developers expressing a strong preference for shared ownership or affordable rent over social rent accommodation as these require less cross subsidy. Some felt that the provision of new stock at social rent levels was often only possible on council-owned land, and in those areas eligible for Homes England funding for this tenure type. They have also found that viability appraisals are used to reduce the amount of affordable housing provided on a site, either overall or swapping from social rent to shared ownership. Similarly, one housing association, whilst noting a preference to build out as social rent, suggested that *“the economics of building is pushing us towards affordable rent”*, with another participant suggesting build costs had gone from £2k to £3k a square metre over a period of just five years. Dialogue with the Treasury over some of these issues was noted with frustration:

“supply chain and inflation is biting more than COVID ever did on construction ... If we can't get materials, we can't meet our start on site deadline ... What are you going to do about that at a national level and the response is, there's no extension of funding from Treasury.”

A recurring theme of the local authority interviews was that viability is a key factor for those authorities that have limited landholdings: *“Other councils will tender their land. They'll say 'right, we need to placemake this area, and open invites to offers and we want to see the plans and check we agree' so they've got the power to do that. But, I think we're going to be trying to frontload viability, so that when someone comes forward with a pre-app., we start talking about it then and if it comes out that only 10% is viable, then we might say thank you upfront and we'll leave the land as it is. If it's only going to bring us 30 affordable homes out of 100s, then we'll just leave it or find someone else”*.

The approach towards affordable housing provision on schemes differed between housebuilders. Smaller scale companies are less likely to re-negotiate on viability either pre- or post-consent. As they generally don't have a large pipeline of projects, negotiating on viability would create delay, and they need to get on site quicker than some of the major players to maintain their cash flow: *“We don't like going to do viability appraisals. They are a complete nuisance”*.

On the other hand, larger developers who are paying high costs for land are more likely to negotiate on viability, with affordable housing considered as one of the first elements to be sacrificed in order to reduce overall costs:

“Frankly, you've gotta try and cut costs as well, which, you know, doesn't necessarily lend itself to delivering high quality schemes and obviously affordable housing as well. And I know a number of housebuilders, we've never done it actually because the scale that we operate at, but obviously a number of the larger house builders spend a huge amount of time challenging viability at planning stage. And, you know, sadly, it's the affordable housing that usually is the first thing to give.”

Importantly, however, one developer highlighted the benefits of affordable housing in terms of providing guaranteed cash flow early on in the project:

“It helps us in terms of business resilience and cash flow and all that sort of stuff because basically if you've got 30% affordable housing, we do a deal with X or or any of the others. We've pre-sold 30% of our product.”

Impact of Right to Buy

The policy of Right to Buy, where tenants have been able to purchase local authority housing, has come under scrutiny due to its role in reducing the availability of social housing. Since 1980, when the scheme was introduced, almost 1.9m local authority-owned homes have been sold to tenants in England, and these homes represent around 7.5% of all properties. The South West has the lowest level of Right to Buy sales over this period at around 144K homes (Figure 11), 5.6% of all properties. Around 77% of Right to Buy sales in the South West occurred pre-1997, and over the 25 years from 1997 to 2021 a total of 33,220 homes, or around 1329 per year have been sold.

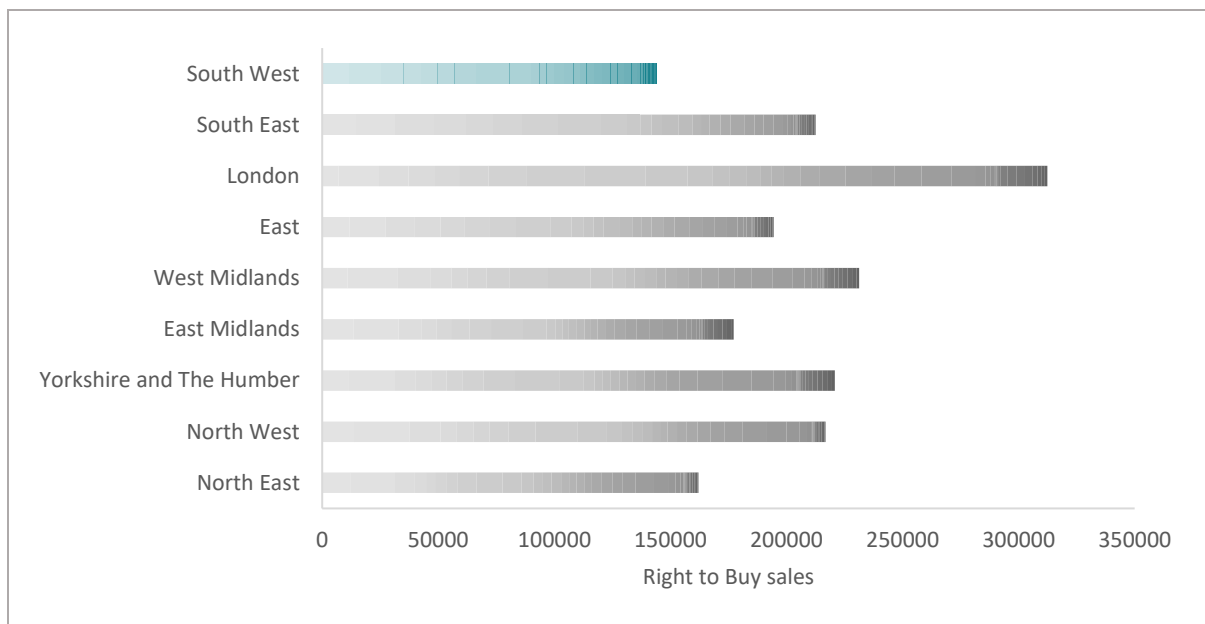


Figure 11. Number of Right to Buy sales of local authority-owned housing between 1980 and 2021, by region (Data source: Ministry of Housing, Communities and Local Government¹¹ licensed under the Open Government Licence v.3.0).

From the survey, most local authorities reported Right to Buy as having a detrimental impact on housing affordability in their area; this impact being more important in its legacy than how it is currently impacting on housing affordability.

The issue was not so much with the loss of council homes, with some authorities stating that Right to Buy has provided some of the more affordable private sale stock, but the loss of social housing *and* lack of any mechanism to ensure that there is a one-for-one replacement for every lost social unit. For example, one authority stated that 20,000 homes had been sold via Right to Buy and they have 16,000 on their waiting list.

Housing association respondents also highlighted the negative impact of Right to Buy, suggesting it had contributed to a substantial depletion – quantitatively and qualitatively – of the affordable housing stock, over time: *“it’s the best homes that are sold, in the better locations, and they’re just not being replaced at the rate that they’re being sold at”*.

The principle of Right to Buy, itself, was not widely questioned by interviewees, but the subsequent impact on rent levels in the private rented sector was identified as a major problem: *“What typically happens ... is that for these homes, the Council tenant buys them, great. ... that’s a good thing. ... But the problem is the unintended consequences of that when they eventually decide to sell their home ... and then eventually it will come into the hands of someone in the private renting market. He will then look to put the price up as high as they can get it, which then in turn further heats up the market and pushes up rental prices ... which means that people can’t access rental homes easily”*.

The impact of Right to Buy was considered by local authority respondents to be particularly acute in small rural communities in which the sale of a relatively small number of properties could significantly deplete overall stock levels (as well as local authority revenue). These dwellings also prove particularly difficult to replace given the high unit costs of construction on small, rural sites: *“we signed up for this one-for-one replacement, but you can’t replace one-for-one ever, it’s almost one-to-three, one-to-four ...”*. In one case, an officer noted that, had properties in a particular village not been sold, the council would not be exploring new development on a rural exception site. Some interviewees indicated that local authorities are buying back former council houses to become part of their affordable stock. They also commented on the type of homes lost through Right to Buy, stating that it has had a disproportionate impact on the stock of houses vis-à-vis flats, with more houses being lost under this mechanism.

Comparing this against the housing completions over the 1997 to 2021 period (Figure 12), we see that local authorities in the South West delivered 2,320 homes over this period – around 93 per year or 0.5% of all housing. Housing association delivery makes up between 8% (Yorkshire and the Humber) and 29% (London) of housing completions, with local authority delivery accounting for less than 1% across all regions. As with affordability the South West ranks fourth behind the South East, London and the East of England for total housing completions. However, for housing association delivery, the South West is third highest in terms of numbers, behind London and the South East, delivering 71,710 homes – around 2,870 per year – at 17% of all housing delivery. Across all regions, private sector delivery accounts for the majority of housing completions, ranging from 71% in London to 92% in Yorkshire and the Humber. Total housing completions from 1997 to 2021 show a relatively steady supply of homes in the South West over this period, with 429,990 dwellings completed – around 17,200 per year. Clearly, this figure of 2,320 local authority homes completed does not compensate for the 33,200 council homes lost under Right to Buy and housing association completions are not disaggregated by tenure.

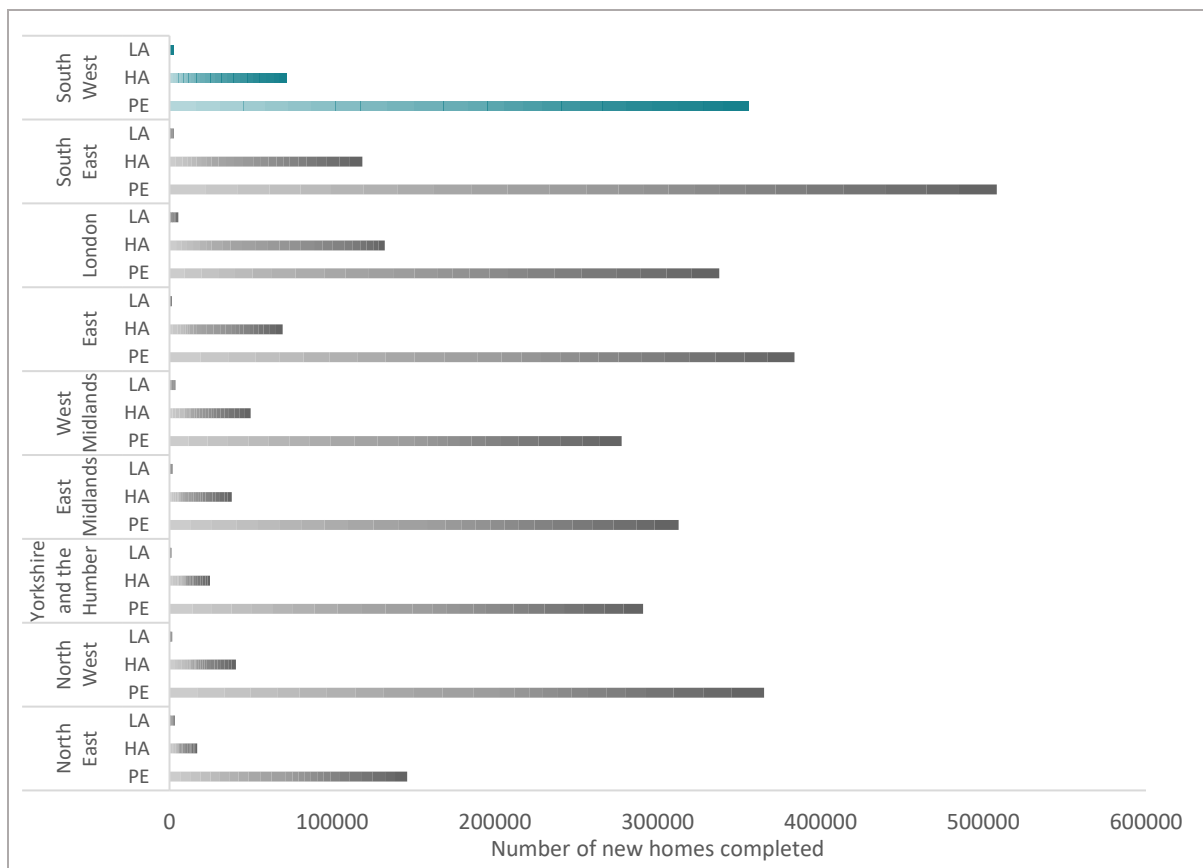


Figure 12. Number of dwellings completed between 1997 and 2021 by local authorities (LA), housing associations (HA) and private enterprise (PE), by region (Data source: Ministry of Housing, Communities and Local Government¹² licensed under the Open Government Licence v.3.0).

In summary, we can see that, compared with the other English regions the affordability of housing in the South West is relatively low. Local authorities and housing association interviewees provided corroboration of the scale of the need for affordable housing in the South West. Reflective of this, one housing association described having an “unprecedented” fifty application inquiries in four days for 38 shared ownership units. Another stated “I can see that we are getting a lot more interest from people looking for affordable housing”. This is being driven by a combination of supply not keeping up with demand, high house prices and relatively low earnings, lack of land for development and high costs of construction. Housing completions, particularly those delivered by housing associations, and Right to Buy sales suggest that the region is delivering homes at a comparable level to the other regions, but that this is insufficient compared with the demand for new homes both in terms of the current demand and the legacy of undersupply.

In the next section, we consider how affordability in the South West varies between local authorities. Please note that this often uses different datasets from the regional figures, so there are some discrepancies between the totals calculated from local authority data compared with the regional data above.

Affordability in local authorities in the South West

In this section, we present the Office for National Statistics data at a local authority level focusing solely on those in the South West. We compare these with English regions to give a sense of how individual local authorities in the South West compare to the rest of England.

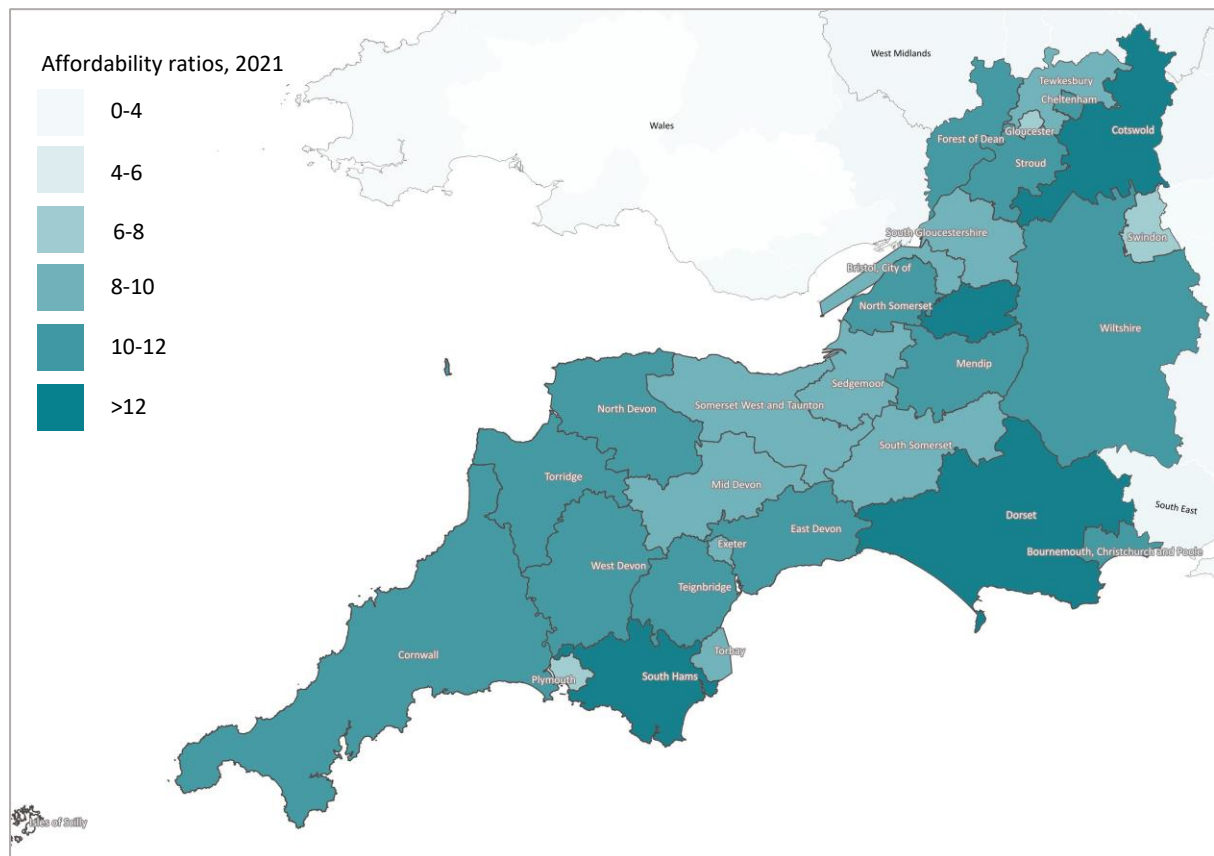


Figure 13. Affordability ratios in 2021 across South West local authorities (Source: Office for National Statistics¹³ licensed under the Open Government License v.3.0. Contains OS data ©Crown copyright and database right 2022 ©OpenStreetMap).

We can see from Figure 13 that there is substantial variation in affordability between the local authorities in the South West. When the 2021 affordability ratios in the South West are ranked, and compared across the regions the extent of this variation is clear (Table 1). Across the 29 local authorities in the South West (Isles of Scilly are not included), **affordability ratios vary from 7.27 in Plymouth (i.e. median house prices are over seven times median earnings) to 15.75 in Cotswold using workplace-based earnings.** This means that the affordability ratio in Plymouth is greater than those in the North West, Yorkshire and the Humber and the North East, whilst that in Cotswold District is greater than London. In addition, **eight local authorities have greater affordability ratios than the South East and 22 out of 29 are greater than England,** with median house prices at over nine times median earnings. Looking at the rural-urban classification¹⁴, there is a tendency for the more rural areas to be less affordable than the towns and cities (Table 1).

Table 1. Ranking of 2021 affordability ratios, median house prices and median earnings in local authorities in South West (Data source: Office for National Statistics¹⁵ licensed under the Open Government Licence v.3.0).

Local authority	Affordability ratio		House price		Annual earnings	
		Rank	£	Rank	£	Rank
Cotswold	15.75	1	408,000	1	25,910	23
<i>London</i>	<i>12.97</i>		<i>515,000</i>		<i>39,716</i>	
South Hams	12.56	2	352,998	3	28,096	17
Dorset	12.22	3	330,000	4	26,999	18
Bath and North East Somerset	12.15	4	368,000	2	30,296	7
West Devon	11.96	5	290,000	15	24,247	29
Teignbridge	11.40	6	280,000	16	24,558	28
Mendip	11.22	7	298,500	14	26,612	22
Bournemouth, Christchurch, Poole	11.17	8	325,000	5	29,095	13
<i>South East</i>	<i>11.12</i>		<i>365,000</i>		<i>32,810</i>	
Cornwall	10.99	9	275,000	18	25,013	27
East Devon	10.88	10	317,500	6	29,176	11
Forest of Dean	10.62	11	275,000	18	25,883	24
North Somerset	10.58	12	300,000	11	28,353	16
Cheltenham	10.55	13	310,000	9	29,371	10
<i>East</i>	<i>10.53</i>		<i>325,000</i>		<i>30,867</i>	
North Devon	10.46	14	280,000	16	26,766	21
Torrige	10.34	15	265,000	22	25,629	26
Wiltshire	10.32	16	300,000	11	29,069	14
Stroud	10.27	17	315,000	7	30,680	5
<i>South West</i>	<i>9.97</i>		<i>290,000</i>		<i>29,080</i>	
Bristol	9.70	18	315,000	7	32,470	3
Mid Devon	9.29	19	270,750	21	29,144	12
Exeter	9.22	20	275,000	18	29,827	8
Somerset West and Taunton	9.16	21	260,000	23	28,384	15
Tewkesbury	9.15	22	301,000	10	32,896	2
<i>England</i>	<i>9.05</i>		<i>285,000</i>		<i>31,480</i>	
Sedgemoor	9.00	23	243,000	25	26,987	19
Torbay	8.90	24	230,000	27	25,854	25
South Gloucestershire	8.82	25	300,000	11	34,010	1
South Somerset	8.80	26	259,600	24	29,516	9
<i>East Midlands</i>	<i>7.78</i>		<i>221,000</i>		<i>28,416</i>	
Swindon	7.69	27	241,950	26	31,471	4
<i>West Midlands</i>	<i>7.50</i>		<i>225,000</i>		<i>30,000</i>	
Gloucester	7.34	28	223,000	28	30,389	6
Plymouth	7.27	29	195,000	29	26,820	20
<i>North West</i>	<i>6.43</i>		<i>190,000</i>		<i>29,529</i>	
<i>Yorkshire and The Humber</i>	<i>6.42</i>		<i>185,000</i>		<i>28,808</i>	
<i>North East</i>	<i>5.45</i>		<i>150,000</i>		<i>27,515</i>	
Mainly rural ¹⁴		Largely rural		Urban with significant rural		Urban city and town

NB. It is not possible to calculate 2021 affordability ratios for the Isles of Scilly as earnings data are not available.

The **least affordable rural areas appear to be those towards the east of the region and/or those known for tourism** (e.g. Bath and North East Somerset, Cotswold, South Hams, Dorset). This geographical variation will be explored further later. Comparing the ranks of affordability ratios with those of house prices and earnings, we can see some large disparities across the South West (Table 2).

Table 2. Ranking of 2021 affordability ratios, lower quartile house prices and lower quartile earnings in local authorities in South West (Data source: Office for National Statistics¹⁶ licensed under the Open Government Licence v.3.0).

Local authority	Affordability ratio		House price		Annual earnings	
		Rank	£	Rank	£	Rank
Cotswold	15.04	1	297,500	1	19,775	26
West Devon	12.39	2	205,000	17	16,539	29
Bath and North East Somerset	11.89	3	268,000	2	22,544	6
South Hams	11.58	4	250,000	3	21,598	13
Dorset	11.48	5	240,000	6	20,913	19
Bournemouth, Christchurch, Poole	11.28	6	246,000	5	21,813	12
Forest of Dean	11.08	7	205,000	18	18,508	28
East Devon	11.07	8	235,000	8	21,225	17
North Somerset	10.88	9	225,500	11	20,718	22
Mendip	10.83	10	225,000	13	20,773	21
Wiltshire	10.79	11	230,000	10	21,314	15
Teignbridge	10.62	12	209,995	16	19,765	27
Stroud	10.46	13	235,000	9	22,460	7
Bristol, City of	10.37	14	247,000	4	23,822	3
Cheltenham	10.09	15	225,500	12	22,344	8
Cornwall	9.89	16	196,500	21	19,875	25
Exeter	9.83	17	218,000	15	22,177	9
Mid Devon	9.63	18	204,950	20	21,275	16
North Devon	9.57	19	205,000	19	21,415	14
South Gloucestershire	9.54	20	240,000	7	25,166	1
Torridge	9.48	21	190,000	24	20,032	24
Tewkesbury	9.45	22	225,000	14	23,815	4
South Somerset	8.81	23	195,000	22	22,139	11
Sedgemoor	8.58	24	182,000	26	21,222	18
Somerset West and Taunton	8.47	25	193,000	23	22,790	5
Torbay	8.45	26	172,000	28	20,343	23
Gloucester	7.90	27	175,000	27	22,144	10
Swindon	7.76	28	185,000	25	23,850	2
Plymouth	7.26	29	151,000	29	20,796	20
Mainly rural ¹⁴		Largely rural	Urban with significant rural		Urban city and town	

NB. It is not possible to calculate 2021 affordability ratios for the Isles of Scilly as earnings data are not available.

For example, although Cotswold District had the greatest median house price in 2021, it is ranked 23rd for earnings, behind the median figure for all regions, including the North East,

explaining its high affordability ratio. A similar pattern is observed for other local authorities, including Cornwall, South Hams and Dorset. To illustrate further, **15 local authorities have house prices greater than the England median, whereas only three (South Gloucestershire, Bristol and Tewkesbury) have annual earnings above the median for England.** In fact, although all local authorities in the South West have median house prices greater than the medians for the North West, Yorkshire and the Humber, and North East, only eight local authorities have earnings greater than the North West, fourteen are greater than Yorkshire and the Humber and seventeen are greater than the North East.

Using median affordability ratios for all dwelling types does not recognise the variation between different housing types and ages. Looking first at building types (Figure 14), we see that in all local authorities detached houses are the least affordable and flats/maisonettes are the most affordable (based on median income). Given the average smaller size of flats compared to other properties, this indicates the difficulties experienced by families with lower incomes. In most local authorities, the affordability ratios for detached homes are above 12 (i.e. house prices for detached homes are more than 12 times annual earnings), ranging from 12.8 in South Gloucestershire to 21.2 in Cotswold District (see Figure 14). The only exceptions are Gloucester and Swindon, and even in these areas the affordability ratios are 11.1 and 11.7 respectively.

The picture is more mixed for semi-detached and terraced houses. Affordability ratios for semi-detached properties range from 8.1 in Swindon and South Gloucestershire to 11.6 in Bath and North East Somerset to 14.2 in Cotswolds. Terraced houses have affordability ratios below seven in several local authorities: Forest of Dean (5.9), Swindon (6.3), Sedgemoor (6.7), Tewkesbury (6.7), Plymouth (6.7) and South Somerset (6.8), perhaps putting them within reach of households with two median incomes. However, in places such as Bath and North East Somerset, Bristol and Cotswold District terraced house prices remain over ten times earnings. Finally, looking at flats/maisonettes, affordability ratios are between 4 and 5 in ten local authorities: Plymouth, Swindon, Mid Devon, Forest of Dean, Gloucester, Stroud, Tewkesbury, Sedgemoor, South Somerset and Somerset West and Taunton. Again, areas like Bath and North East Somerset, South Hams and Cotswold District remain the least affordable with affordability ratios of between 8 and 10 even for flats/maisonettes.

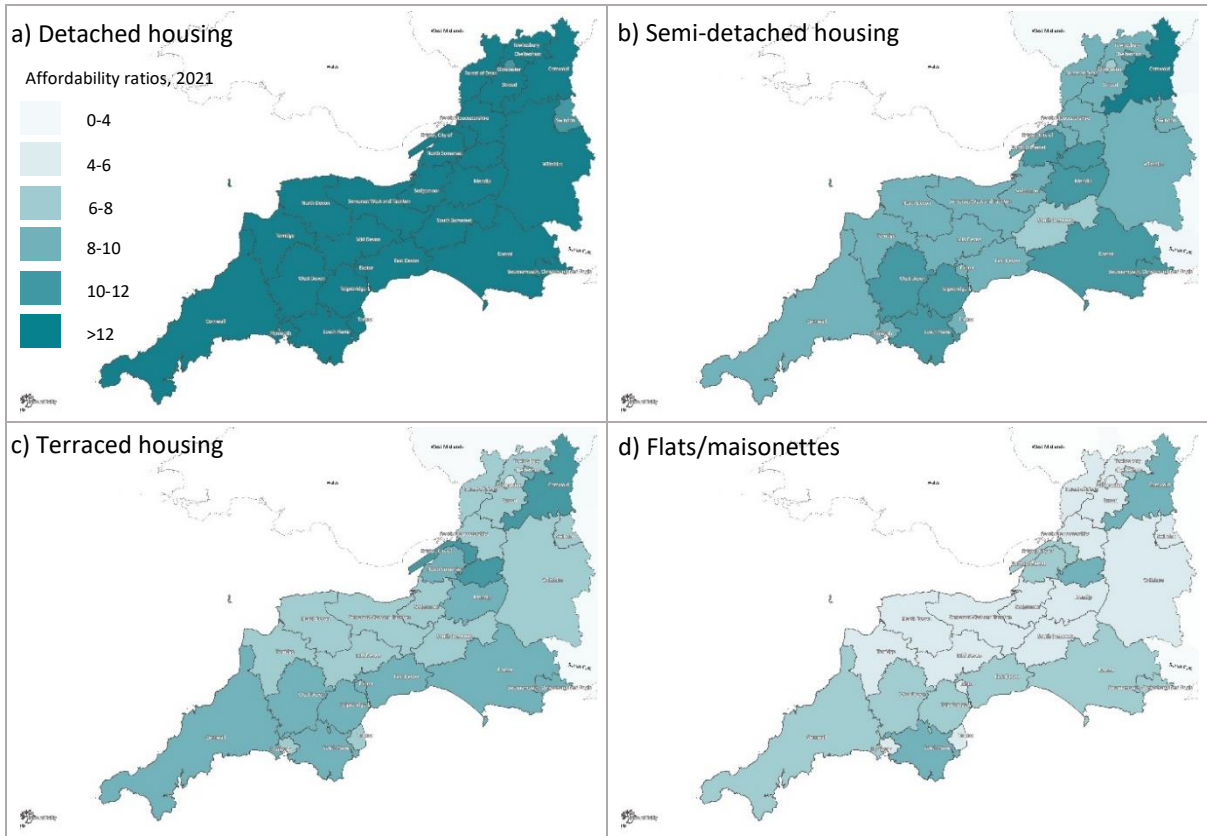


Figure 14. Affordability ratios in 2021 across South West local authorities for a) detached houses, b) semi-detached houses, c) terraced houses and d) flats and maisonettes (Source: Office for National Statistics¹⁷ licensed under the Open Government License v.3.0. Contains OS data ©Crown copyright and database right 2022 ©OpenStreetMap).

In line with the national picture, existing properties across the South West are slightly more affordable than new builds (Figure 15).

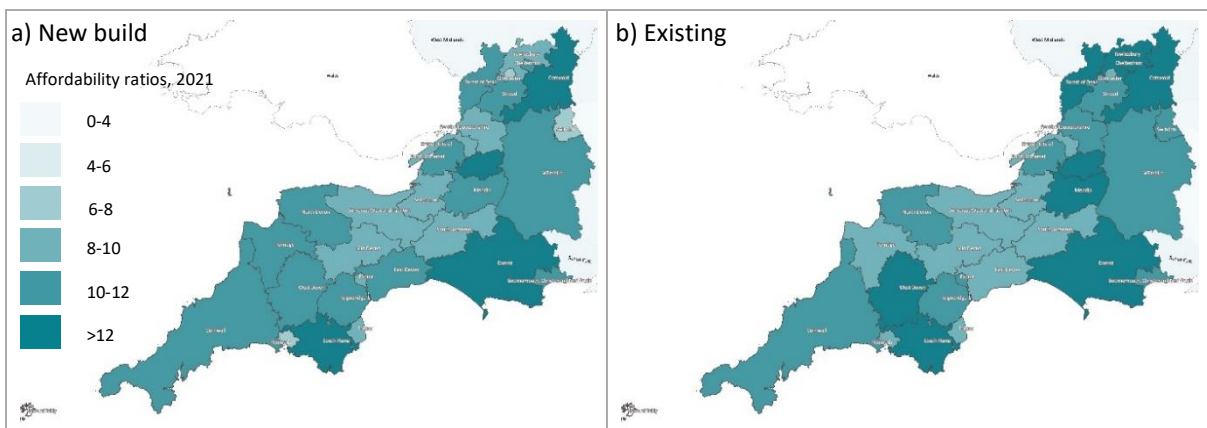


Figure 15. Affordability ratios in 2021 across South West local authorities for a) new build and b) existing homes (Data source: Office for National Statistics¹⁸ licensed under the Open Government Licence v.3.0).

These differences tend to be relatively modest in most places. However, in some local authorities existing properties have affordability ratios that are substantially lower than new builds. For example, in Swindon the affordability ratio for existing properties is 7.6, whereas for new builds it is 10.2. Similarly, in Cheltenham, Cotswold and Gloucester the difference is more than 3 (Table 3). In some authorities, new builds are more affordable than existing properties: Bristol, Bournemouth, Christchurch and Poole, Teignbridge, East Devon, South Hams, Torridge and Sedgemoor, although the difference is generally less than 1 (Table 3).

Table 3. Ranking of difference between 2021 affordability ratios for existing and new build properties in local authorities in South West (Data source: Office for National Statistics¹⁹ licensed under the Open Government Licence v.3.0).

Local authority	2021 Affordability Ratios		Difference
	Existing properties	New builds	
Cheltenham	10.6	13.8	3.3
Cotswold	15.6	18.9	3.3
Tewkesbury	8.8	12.2	3.3
Forest of Dean	10.4	13.5	3.1
West Devon	11.9	14.7	2.8
Swindon	7.6	10.2	2.6
Mendip	11.1	13.2	2.1
Exeter	9.1	11.0	1.9
South Gloucestershire	8.7	10.2	1.5
Plymouth	7.3	8.6	1.4
Gloucester	7.3	8.5	1.2
North Devon	10.4	11.2	0.8
South Somerset	8.7	9.5	0.8
Wiltshire	10.3	11.0	0.7
Stroud	10.3	11.0	0.7
Dorset	12.2	12.8	0.6
Torbay	8.9	9.4	0.5
Somerset West and Taunton	9.2	9.7	0.5
Bath and North East Somerset	12.0	12.4	0.3
Cornwall	11.0	11.2	0.2
Mid Devon	9.3	9.4	0.2
North Somerset	10.6	10.5	0.0
South Hams	12.6	12.5	-0.1
Bournemouth, Christchurch and Poole	11.2	10.9	-0.3
Sedgemoor	9.1	8.5	-0.6
Teignbridge	11.4	10.6	-0.8
Bristol	9.7	8.6	-1.1
East Devon	11.0	9.8	-1.2
Torridge	10.3	8.6	-1.8
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town

Factors affecting the differences in housing affordability

In this section, we build on the regional analysis provided earlier to explore whether the factors which influence housing affordability at the regional level vary between and within local authorities across the South West. As before we explore factors such as the disparity between house prices and earnings, and demand versus supply, but we also consider geographical factors which make the South West special including the coastline, landscape designations and variation in digital and transport connectivity. The secondary data are supplemented with insights from the local authority survey, planning policies and stakeholder interviews.

High house prices and low earnings

Looking at the change in affordability ratio across local authorities in the South West between 1997 and 2021 (Figure 16) we can see some patterns starting to emerge. First, although all local authorities see an increase in affordability ratio over this time period, there are considerable differences between them.

The more rural authorities have consistently remained the least affordable in the region, but some, for example Cotswold District and South Hams have seen a greater increase compared with other rural authorities (Table 4).

Although urban areas are still generally more affordable, some have seen the greatest increases in affordability ratios, particularly the more urban authorities in the West of England (i.e. Bath and North East Somerset, Bristol, South Gloucestershire and North Somerset) or with greater connectivity to the South East (e.g. Cheltenham and Swindon) and/or universities (e.g. Plymouth and Exeter).

As with the regional analysis, an examination of the change in house prices and earnings separately reveals that the increases in affordability ratios are driven by earnings not keeping up with house prices (Table 4). For example, we can see that **since 1997, house price increases in all local authorities are around 3 to 5 times greater than those of earnings**. In some areas, such as the West of England, these increases are particularly stark, for example, Bristol has since an almost 500% increase in house prices, yet only an 85% increase in earnings over the same period. Places with smaller increases, such as Plymouth and Swindon have seen correspondingly smaller increases in earnings. The areas, primarily in Devon, with the smallest increases in affordability ratios, have seen more modest increases in house prices coupled with large increases in earnings.

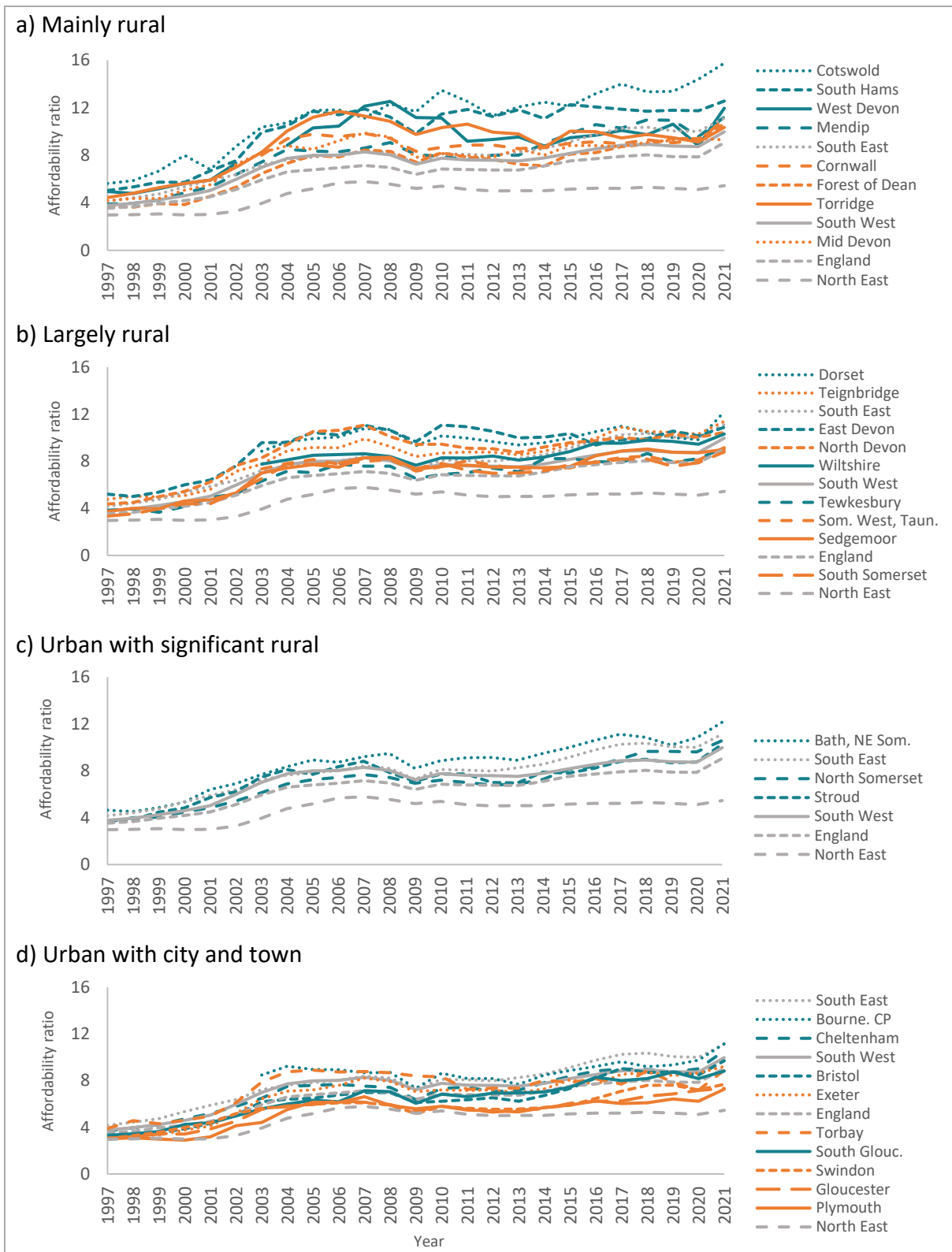


Figure 16. Affordability ratio, by local authority 1997-2021 (Data source: Office for National Statistics²⁰ licensed under the Open Government Licence v.3.0).

Table 4. Percentage change in median affordability ratios (AR), house prices and annual earnings between 1997 and 2021, and 2004 and 2021 for local authorities in the South West (Calculated from: Office for National Statistics²¹ licensed under the Open Government Licence v.3.0).

Local authority	Percentage change between 1997 and 2021			Percentage change between 2004 and 2021		
	House price	Annual earnings	AR	House price	Annual earnings	AR
North Somerset	400	73	189	94	26	54
Bristol	494	85	220	121	46	51
South Gloucestershire	400	88	165	100	36	47
Cotswold	366	67	180	84	25	47
Bath and North East Somerset	426	101	161	99	37	46
Forest of Dean	374	65	187	91	32	45
Cheltenham	417	80	187	88	34	41
West Devon	368	94	141	71	26	35
Swindon	318	64	154	79	35	33
Mendip	406	76	188	93	46	32
Plymouth	319	74	141	70	29	32
Exeter	400	76	184	77	37	30
Teignbridge	367	95	139	69	32	28
Tewkesbury	363	94	138	89	48	28
Wiltshire	338			78	40	27
Stroud	408	84	176	85	46	27
Dorset	358			72	36	26
Gloucester	342	85	139	78	42	26
Sedgemoor	334	80	140	66	38	21
Bournemouth, Christchurch, Poole	400			81	50	21
South Hams	415	106	150	81	51	20
Somerset West and Taunton	337			68	43	17
Cornwall	404			70	45	17
South Somerset	355	73	163	71	51	13
East Devon	370	125	109	72	52	13
North Devon	391	105	139	70	54	11
Mid Devon	352	102	123	69	60	6
Torridge	405	117	133	66	61	3
Torbay	326	87	128	62	60	2
Mainly rural ¹⁴	Largely rural	Urban with significant rural		Urban city and town		

NB. It is not possible to calculate 2021 affordability ratios for the Isles of Scilly as earnings data are not available.

Local authority officers also suggested that disparity between increasing house prices and earnings was more acute for those on low incomes. Looking at the data since 1997 (Table 5), this seems to be the case in several places, especially those with very large increases in the median prices (e.g. Bristol, South Gloucestershire). Although, in most places the lower quartile earnings have increased by slightly more than medians, these are still much lower

than property price increases and these are the households with less disposable income after other essentials.

Table 5. Percentage change in lower quartile affordability ratios (AR), house prices and annual earnings between 1997 and 2021, and 2004 and 2021 for local authorities in the South West (Calculated from: Office for National Statistics²² licensed under the Open Government Licence v.3.0).

Local authority	Percentage change between 1997 and 2021			Percentage change between 2004 and 2021		
	House price	Annual earnings	AR	House price	Annual earnings	AR
Forest of Dean	366	62	188	94	19	57
Bristol, City of	502	90	217	121	43	51
North Somerset	380	75	174	100	29	46
Cotswold	376	71	178	84	33	40
South Gloucestershire	411	98	158	99	38	40
Bath and North East Somerset	410	99	157	91	44	33
Cheltenham	370	84	155	88	38	30
Stroud	400	91	161	71	43	29
Tewkesbury	350	87	141	79	42	27
Plymouth	322	92	120	93	40	27
Wiltshire	347			70	43	24
Mendip	389	93	153	77	49	23
West Devon	356	95	134	69	28	23
Exeter	395	82	173	89	43	22
Swindon	311	70	141	78	39	21
Teignbridge	372	112	122	85	41	20
Dorset	357			72	39	19
Gloucester	361	91	141	78	51	18
Bournemouth, Christchurch, Poole	402			66	55	14
East Devon	375	107	129	81	51	13
South Hams	400	114	133	81	53	13
Sedgemoor	341	89	133	68	50	10
North Devon	377	118	119	70	48	10
South Somerset	346	86	140	71	52	8
Mid Devon	355	96	132	72	58	7
Cornwall	375			70	54	2
Somerset West and Taunton	329			69	60	-3
Torbay	314	92	115	66	61	-5
Torridge	381	117	122	62	78	-11
Mainly rural ¹⁴	Largely rural		Urban with significant rural		Urban city and town	

NB. It is not possible to calculate 2021 affordability ratios for the Isles of Scilly as earnings data are not available.

As already discussed, local authority interviewees recognised that a distinctive characteristic of many localities in the South West is that problems of affordability are as much (or more) attributable to low incomes, as they are to elevated property prices. This was felt to be especially true of those local economies characterised by seasonal, low paid work in agriculture (rural communities) or tourism (coastal communities) but also impacts upon urban areas with significant levels of multiple deprivation (e.g. Plymouth). However, this experience was not universal across the region: *“I don’t think its unique, necessarily. I think we’re probably less extreme than some parts of the South West and probably more comparable with other cities outside the region, possibly in the North and Midlands”*. Local authority respondents also noted that developers prefer shared ownership or affordable rent, and that this tenure mix limits the delivery of genuinely affordable homes in places where affordability is as much a function of low incomes as elevated property prices, e.g. disadvantaged urban areas such as Plymouth and Torbay, and remote rural communities.

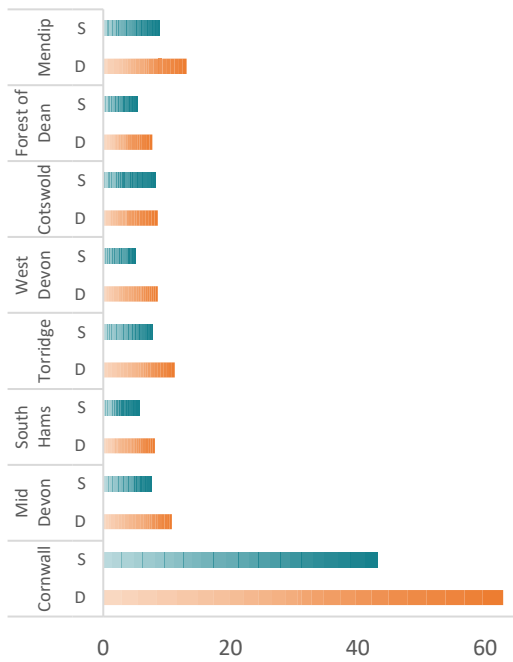
Demand for housing versus supply

We saw earlier that there has been a substantial shortfall in the delivery of new homes since 1997 nationally and in the South West. But within the South West, as with affordability, there is a large variation in the shortfall across the region (Figure 17). In most areas, the demand for new housing has exceeded construction. Only in Somerset West and Taunton, North Devon and Cotswolds does supply appear to be broadly in line with demand. The larger local authorities of Cornwall, Wiltshire and Dorset have seen some of the greatest need for new housing, which is unsurprising given their size. In contrast, some of the other areas with the greatest need for new housing, for example, in the urban areas of North Somerset, Bristol, Bournemouth, Christchurch and Poole, South Gloucestershire, and Swindon are also some of the most constrained in terms of land. **In total, the difference between supply and demand across the region suggests a shortfall of 99,978 homes** (Table 6), larger than that estimated using regional data above.

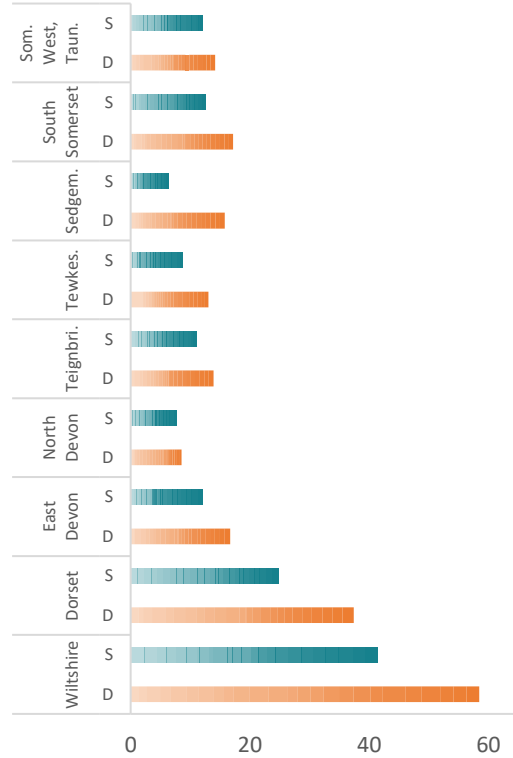
It is generally these types of places – the large, rural local authorities and the constrained urban areas, especially in the West of England and closer to the South East – that have the greatest shortfall of new housing. Many of these areas are also those with the greatest increases in house prices and/or affordability ratios since 1997 (Table 4), including Bristol, Cornwall, North Somerset, and South Gloucestershire, and/or the highest affordability ratios in 2021, including Bournemouth, Christchurch and Poole, Dorset and Wiltshire (Table 2).

Although the demand for new housing is not as high in smaller, rural areas such as Mendip, East and West Devon, Torridge and South Hams, these also appear to have relatively large shortfalls in the delivery of new homes. Except for Torridge, these are also areas with some of the greatest affordability ratios in 2021 (Table 2).

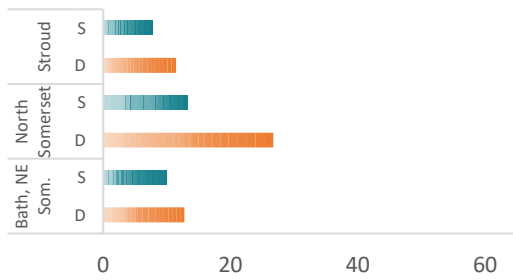
a) Mainly rural



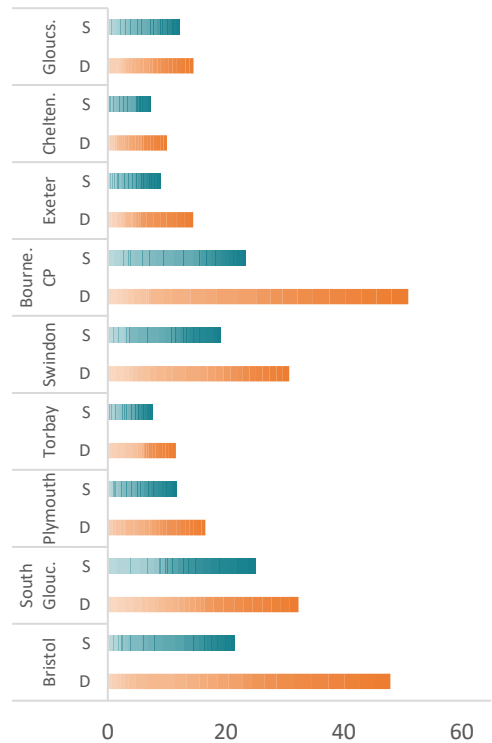
b) Largely rural



c) Urban with significant rural



d) Urban with city and town



Number of new homes completed (S) or needed (D) with affordability adjustment

Figure 17. Number of homes completed and needed 1997-2021 (Calculated from: Ministry of Housing, Communities and Local Government and Office for National Statistics²³ licensed under the Open Government Licence v.3.0).

When the annual household formation projections are subjected to an adjustment for affordability as per the 'standard method', the shortfall in housing delivery is greater across all local authorities (Table 6). In total this equates to a shortfall of 206,266 homes across the region.

Table 6. Difference between the demand for new homes, based on household projections, and with an adjustment for the affordability, and those completed, 1997-2021 in the local authorities in the South West (Calculated from: Ministry of Housing, Communities and Local Government and Office for National Statistics²⁴ licensed under the Open Government Licence v.3.0).

Local authority	Difference between supply and demand 1997-2021		
	Number of homes	Adjusted for affordability	
Bournemouth, Christchurch and Poole	17,064	27,440	
Bristol	18,737	26,455	
Cornwall	8,644	19,771	
Wiltshire	6,277	17,088	
North Somerset	8,952	13,444	
Dorset	4,689	12,552	
Swindon	8,568	11,609	
Sedgemoor	6,652	9,290	
South Gloucestershire	2,947	7,242	
Exeter	3,070	5,293	
Plymouth	3,257	4,820	
East Devon	642	4,691	
South Somerset	1,954	4,627	
Mendip	1,675	4,214	
Stroud	1,611	3,741	
Torbay	2,101	3,682	
Torridge	999	3,465	
Mid Devon	1,192	3,219	
West Devon	1,151	3,164	
Teignbridge	-146	2,775	
Bath and North East Somerset	-94	2,714	
Tewkesbury	773	2,613	
Cheltenham	639	2,373	
Gloucester	956	2,346	
South Hams	179	2,305	
Forest of Dean	993	2,218	
Somerset West and Taunton	83	2,074	
North Devon	-1,161	775	
Cotswold	-2,426	266	
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town

Unsurprisingly, the greatest increases are in the areas with the lowest affordability. For example, using solely household projections, housing delivery in Bath and North East Somerset appears to be keeping up with demand, but the high affordability ratios in this authority mean that these are subjected to a multiplier of 1.5. In addition to the shortfall compared with household projections, most local authorities have also seen a shortfall in housing delivery compared with their Local Plan requirements (Table 7).

Table 7. Comparison between housing requirements set out in the Local Plans of local authorities in the South West (Lichfields, 2022²⁵) and average annual completions²⁶.

Local authority	Annual requirement from Local Plan (Lichfields, 2022)	Local Plan year	Average annual completions since Local Plan	Annual shortfall
Bournemouth, Christchurch, Poole	1723	a	766	-957
Swindon	1467	2015	820	-647
Cornwall	2625	2016	1978	-647
Dorset	1464	a	936	-528
North Somerset	1049	2017	542	-507
Bristol	1320	2011	913	-407
Somerset West and Taunton	995	a	595	-400
Plymouth	660	2019	413	-247
Tewkesbury	495	2017	614	119
Torridge	431	2018	198	-234
Sedgemoor	644	2019	423	-221
Torbay	494	2015	280	-214
Exeter	600	2012	389	-211
Cheltenham	546	2017	344	-202
South Somerset	725	2015	541	-184
Gloucester	727	2017	318	-409
East Devon	950	2016	830	-120
Cotswold	420	2018	533	113
Mid Devon	393	2020	310	-83
Bath and North East Somerset	720	2014	675	-45
South Hams	515	2019	477	-38
Teignbridge	621	2014	586	-35
Mendip	419	2014	405	-14
South Gloucestershire	1360	2013	1367	7
West Devon	160	2019	187	27
Wiltshire	2100	2015	2136	36
Forest of Dean	323	2012	258	-65
Stroud	456	2015	439	-17
North Devon	431	2018	570	139
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

a = assumed average over ten years from 2012 to 2021.

These shortfalls follow a similar pattern to those calculated based on household projections, with the greatest being in Bournemouth, Christchurch and Poole, Swindon, Cornwall, Dorset, Bristol, Gloucester and North Somerset. However, in places like Cotswold and North Devon there appears to be some disparity between the required numbers in the Local Plan and the household projections, with these areas seeing completions exceed the plan numbers despite household projections.

As with the regional picture, local authorities in the South West are experiencing population growth via both international and internal (i.e. within the UK) migration (Figure 19). However, as we saw above in the South West the main driver is internal migration. Again, this varies between local authorities, with only those with universities (i.e. Bristol, Bath and North East Somerset, Plymouth, Bournemouth, Christchurch and Poole, Exeter and Gloucester) having levels of international migration which exceeds that from within the UK.

It is not yet clear what the impact of the pandemic will be on both international and internal migration, but there is some tentative suggestion from the local authority survey that the pandemic is having an impact in the South West with people relocating from London, the South East and urban centres because of increased flexibility to work at home in some jobs. If this is borne out by the data and continues, this is likely to have a significant impact on affordability as these jobs tend to have higher salaries and many of these areas are those with higher house prices than the South West (see above).

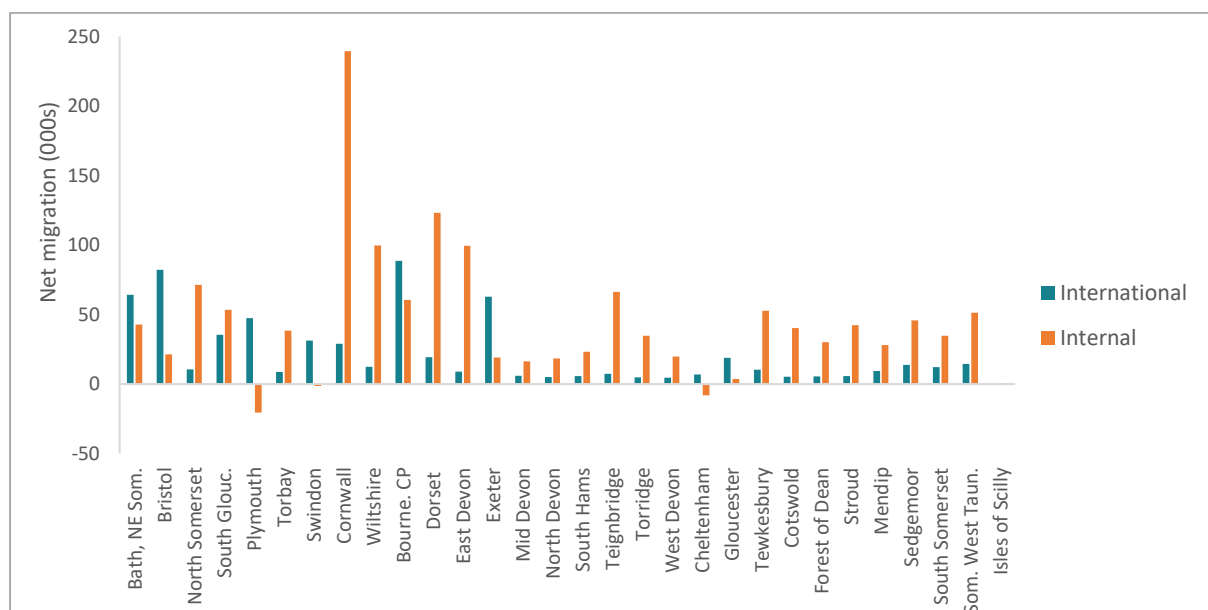


Figure 18. Net migration to local authorities in the South West, 2010 to 2020 (Calculated from: Office for National Statistics²⁷ licensed under the Open Government Licence v.3.0).

In contrast, rural areas with the high affordability ratios and shortfall in supply of Cornwall, Devon and Dorset have seen high levels of internal migration since 2010 (Figure 18).

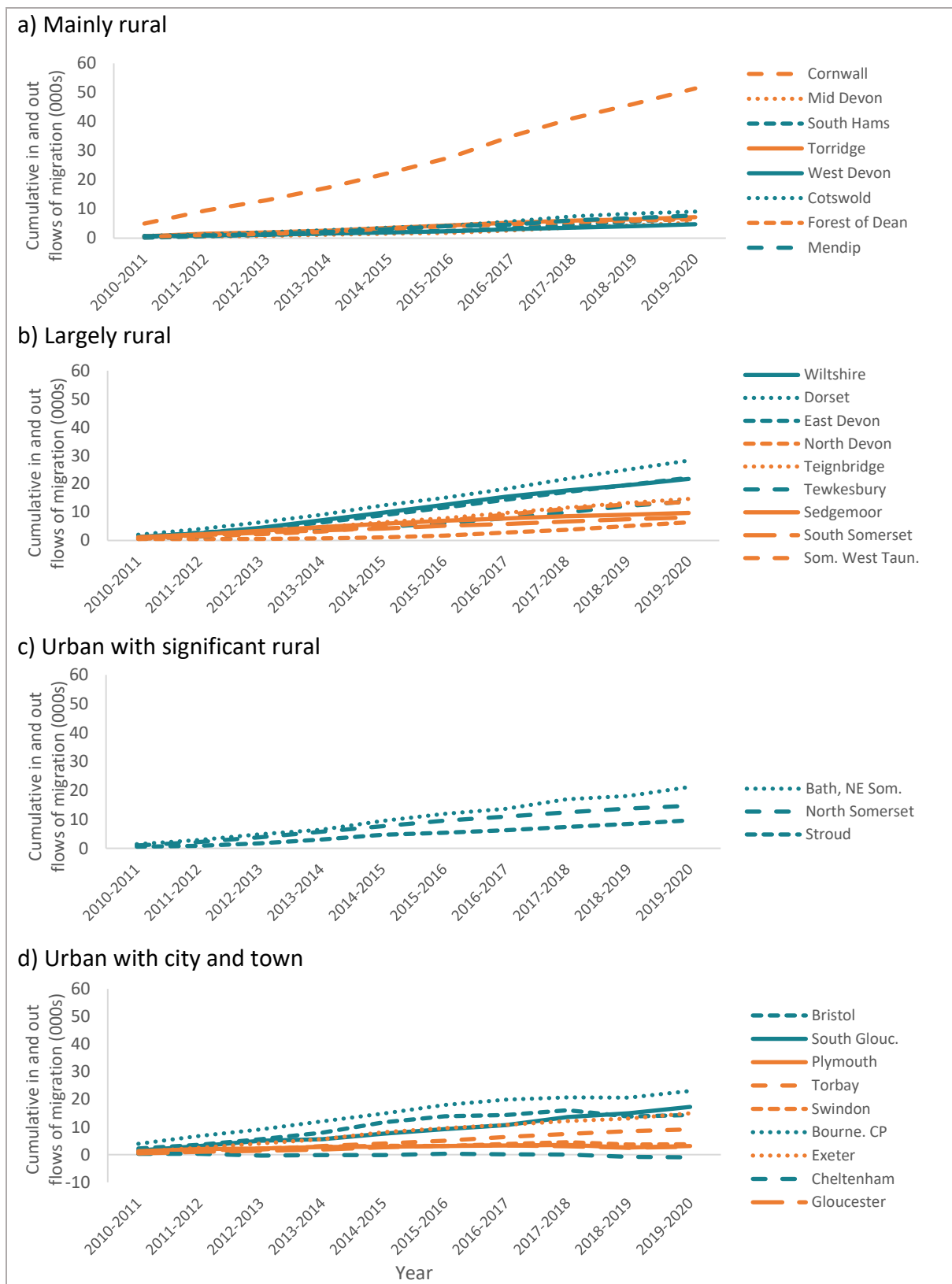


Figure 19. Net annual international and internal (i.e. within the UK) migration in the regions between 2010 and 2020 (Calculated from: Office for National Statistics²⁸ licensed under the Open Government Licence v.3.0).

Barriers to delivery

Earlier we outlined how the shortage, and cost, of land was contributing to the delivery of affordable homes in the South West. We now turn to some additional barriers to delivery that were highlighted by stakeholders that appear to vary in their severity across the South West and are related to some of the spatial factors we will examine in the next section.

Although housebuilders and housing associations alike highlighted a wide range of barriers to the delivery of affordable housing, foremost amongst these was planning. As one housebuilder commented: *“if you've got planning permission then you know you've got the hottest ticket in town”*.

Two particular themes emerged about planning.

The first was about an *“increased number of planning requirements”*, such as the introduction of biodiversity net gain. Although no participants queried the principle of these requirements: *“we're not against all these things. We think these things are good and necessary”*, these were widely perceived as impacting the overall build costs and viability of schemes.

Nutrient neutrality was also highlighted as currently creating a significant delay to decision making for local authorities. Several local authorities in the region (and elsewhere) have been informed by Natural England that development in certain locations cannot go ahead unless it is 'nutrient neutral'. This means that the nutrient load created by a development because of additional wastewater (including surface water) must be properly mitigated. Many local authorities are currently not making decisions on planning applications while they wait for details of the necessary mitigation measures to be confirmed.

“I mean, it wipes out about 90%, about 90% of my region. You won't get planning in at the moment if you combine it, you combine it with green belt”.

Despite the delays, housing associations did note that these were *“issues that we should be questioning as part of the wider picture”*. Since the interviews the Chief Planner in the Department for Levelling Up, Communities and Housing has written to all local authorities providing some [clarification](#).

The second, and more prominent theme, was about the shortage of planners, and related skills needed to determine planning applications. One participant detailed a council as having one ecologist, whereas *“they actually need three or four ecologists to deal with all the applications coming in”*. Several participants bemoaned the impact staff shortages was having on the speed of planning decision making.

“the thing which is holding up and preventing us from building these amounts of houses is planning. So until they [the Government] open their eyes and pump more money into the local authorities and staff ...”

Across the housebuilder interviews there was a widespread perception of the need for local planning authorities to be better resourced. The resourcing challenge has led to a lack of

dialogue between housebuilders and local authorities, meaning that issues cannot easily be resolved ahead of decisions being made.

“the only correspondence we had with the local planning authority was its automated email to say your application has been registered and then an automated refusal. Only one reason for refusal which we could have overcome very easily. But there wasn't the opportunity to engage in constructive dialogue and there just seems to be a real disconnect really between kind of central government and their housing agenda, 1000 new homes a year or whatever it might be and how that's actually being delivered on the ground because we seem to be struggling.”

The delays in decision making are particularly challenging in the current climate where the price of materials and the price of contractors have been rapidly increasing; build costs are increasing whilst planning permission is being sought. Importantly, it was observed that delays are occurring not only in securing an outline consent or a full planning consent, but in the determination of reserved matters applications and in appeals.

“They're often outline consent ... you still got to go back and get the reserved matters approved, which is taking longer and longer. So hence plan prices go up. So then the pressure is on.”

“Appeal process at the moment is taking anything between typically 9 to 12 months.”

As well as the speed of the planning decision making process the speed of Local Plan making was raised as a significant issue amongst housebuilders. This is a particularly acute challenge for SMEs who often operate in a smaller area, have a smaller pipeline of projects and rely upon the site allocation process. SMEs observed that they largely preferred to stay within a relatively defined geographical area where they had formed strong relationships with local authorities and local contractors. However, delays in the Local Plan process in some places were forcing them to broaden their search area to maintain the viability of the business.

In contrast, local authority officers highlighted that developers in the region are land banking or slow to build out sites with permission that will provide affordable housing. They also noted that local objections to housebuilding delayed the delivery of new homes, acknowledging that, while some of these were general 'anti-development' attitudes, others were due to concerns over the lack of infrastructure in an area. The relationship between local authorities and Parish Councils is also sometimes one of tension: *“We do have a couple of Parish Councils where we have been in Planning Committee where they say 'no, there's no need' but we have identified a housing need and it takes officers such as ourselves to sit in those committees and explain and be the voice of the people”.*

Local authority respondents also noted that issues of costs and viability are not uniform across the region. For example, competition for construction labour from adjacent (often more buoyant) local authorities, and even London, in addition to significant variations in yield or return on investment between premium locations and more peripheral (in market terms) ones, especially remote and small rural sites, and urban brownfields.

Impact of variation in spatial factors

An estimation of the affordability ratios in 2021 in middle and lower super output areas (MSOA or LSOA) reveals substantial variation within the local authorities, which is masked by only considering data at the level of local authority (Figure 20).

Looking at the minimum and maximum affordability ratios in the local authorities (Table 8), we can see that the degree of variation differs across the local authorities.

Table 8. Difference in affordability ratios, in 2021, between the least and most affordable lower super output areas in each local authority (Calculated from: Office for National Statistics²⁹ licensed under the Open Government Licence v.3.0).

Local authority	Affordability ratio, 2021		Percentage difference
	Minimum	Maximum	
Bournemouth, Christchurch and Poole	4.3	32.6	658.0
North Somerset	4.0	25.4	527.5
Cornwall	5.3	31.2	493.0
Sedgemoor	4.2	23.5	464.4
Cheltenham	4.6	25.4	451.9
Bath and North East Somerset	6.7	35.6	433.4
Dorset	5.7	30.0	422.6
Wiltshire	4.7	24.2	416.5
Plymouth	3.4	17.3	405.4
Bristol	5.7	26.5	368.7
North Devon	4.7	21.7	365.0
South Gloucestershire	5.0	22.8	357.1
Mendip	5.0	21.9	339.3
Torbay	4.6	20.2	335.4
Teignbridge	5.6	23.8	325.5
East Devon	5.7	24.2	322.2
Cotswold	8.5	34.5	306.8
South Hams	6.1	24.6	305.0
South Somerset	4.6	18.1	292.3
Tewkesbury	4.7	18.0	282.3
Stroud	5.5	20.1	263.2
Gloucester	3.7	12.3	233.3
Swindon	4.4	14.7	232.7
Somerset West and Taunton	5.7	18.5	226.1
Mid Devon	5.3	15.5	193.0
Exeter	6.4	18.4	188.2
Forest of Dean	6.4	18.4	187.7
West Devon	7.2	19.1	164.7
Torridge	5.9	15.0	153.0
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town

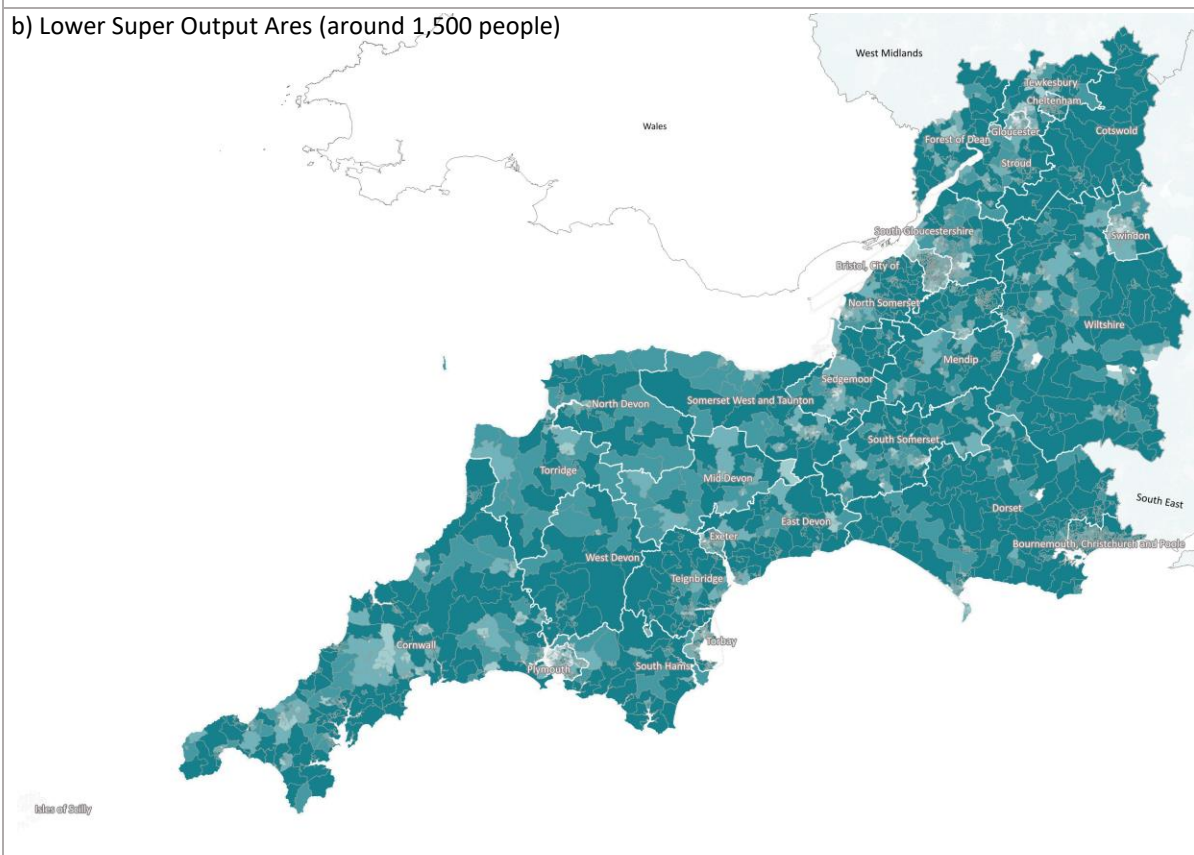
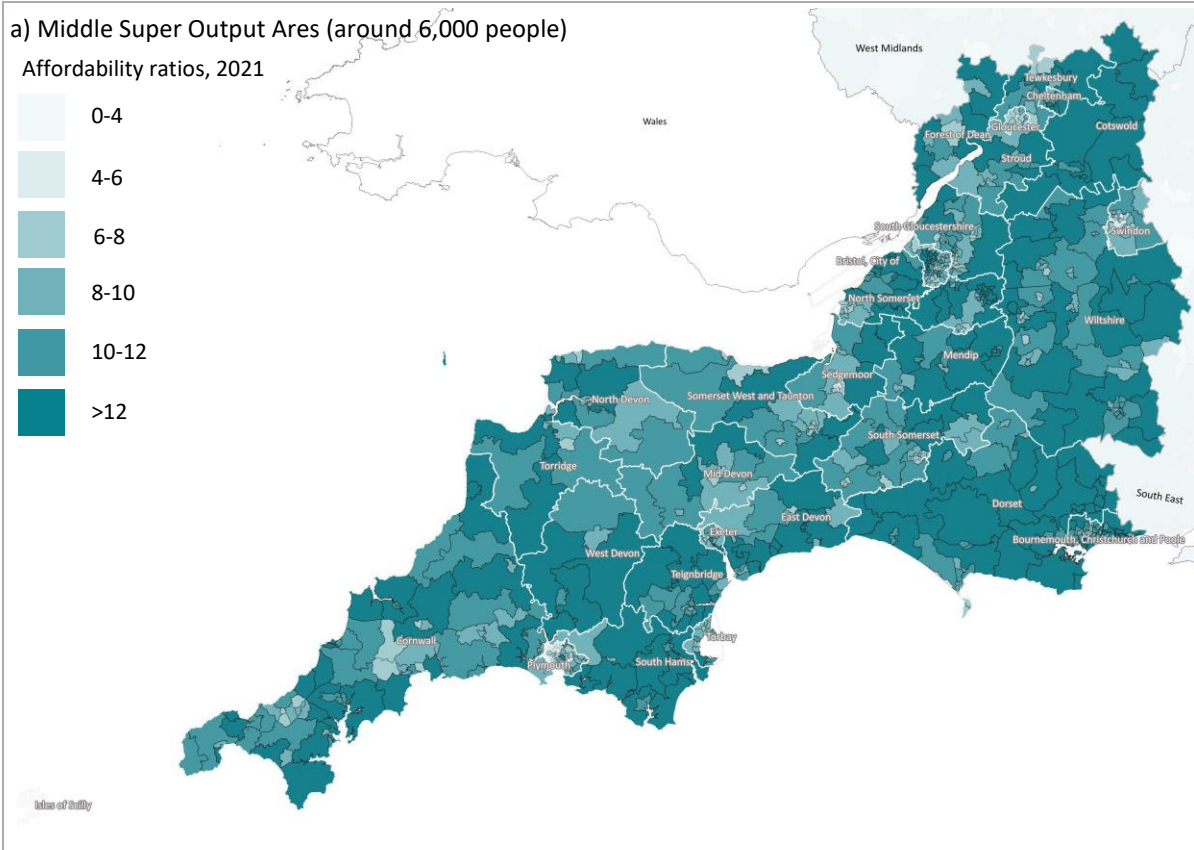


Figure 20. Affordability ratios in 2021 for a) Middle Super Output Areas and b) Lower Super Output Areas in the South West (Source: Office for National Statistics³⁰ licensed under the Open Government License v.3.0. Contains OS data ©Crown copyright and database right 2022 ©OpenStreetMap).

This demonstrates that the variation is greater in the urban authorities and larger more rural authorities. It also reveals the extremes in affordability across the region, for example, Plymouth and Gloucester have affordability ratios of below 4 in some neighbourhoods, whereas areas of Bournemouth, Christchurch and Poole, Bath and North East Somerset, Dorset, Cornwall and Cotswold have areas where house prices are more than 30 times earnings. This is likely to cause particular issues in large local authorities, such as Cornwall, Dorset and Wiltshire, and/or those with poor transport connectivity where people may struggle to travel to areas of better pay or lower house prices.

In fact, the ten least affordable neighbourhoods in the South West, all with affordability ratios of more than 28.3 are in Bath and North East Somerset (n=4), Cornwall (n=2), Poole (n=2), Cotswold (n=1) and East Dorset (n=1). In contrast, the majority of the most affordable neighbourhoods, all with affordability ratios of less than 4.4, are in Gloucester (n=4), Plymouth (n=3), Bournemouth, Sedgemoor and North Somerset (all n=1).

In the survey, most local authorities stated that affordability varies in their areas. Those that did not largely qualified this by saying they are a small (urban) area and therefore do not have the scope to have large variations. Unsurprisingly, coastal, rural villages and tourist areas are where affordability issues are perceived to be the most marked, an opinion often evidenced through in-house housing market/needs assessments. Several authorities see their area as at least two distinct markets and have policies/regulations to account for this.

The majority of local authority areas in the South West are quite diverse, incorporating both urban and rural contexts and, thus, display markedly different affordability challenges within the same jurisdiction. Moreover, housing markets do not align closely with local authority boundaries, creating multiple 'spill over' effects, e.g. the influence on semi-rural and suburban localities of the housing market 'footprint' of an adjacent urban authorities.

There are several spatial factors which may be contributing to this variability. To examine some of these we have explored the relationship between affordability and a range of spatial variables reported in the literature or by stakeholders as being important in the South West in relation to demand or supply for housing.

The South West is characterised by its landscape, with significant areas protected for their high quality landscapes as well as the extensive coastline. Across the South West 36% of the area is designated as either an Area of Outstanding Natural Beauty (AONB) or as National Park (Figure 21), more than any other region apart from the South East, which is slightly greater. Again, this varies across the region, for example, in Cotswolds, Dorset, East Devon over half the area is an AONB (Table 10). This has two impacts; **these areas are designated for their high landscape value and therefore they are attractive places to live, and the designations restrict development of new home thereby reducing supply**. Across the South West house prices in LSOAs within an AONB are around £100K more expensive than those that are not protected by this designation, and those in National Parks are around £40K greater.

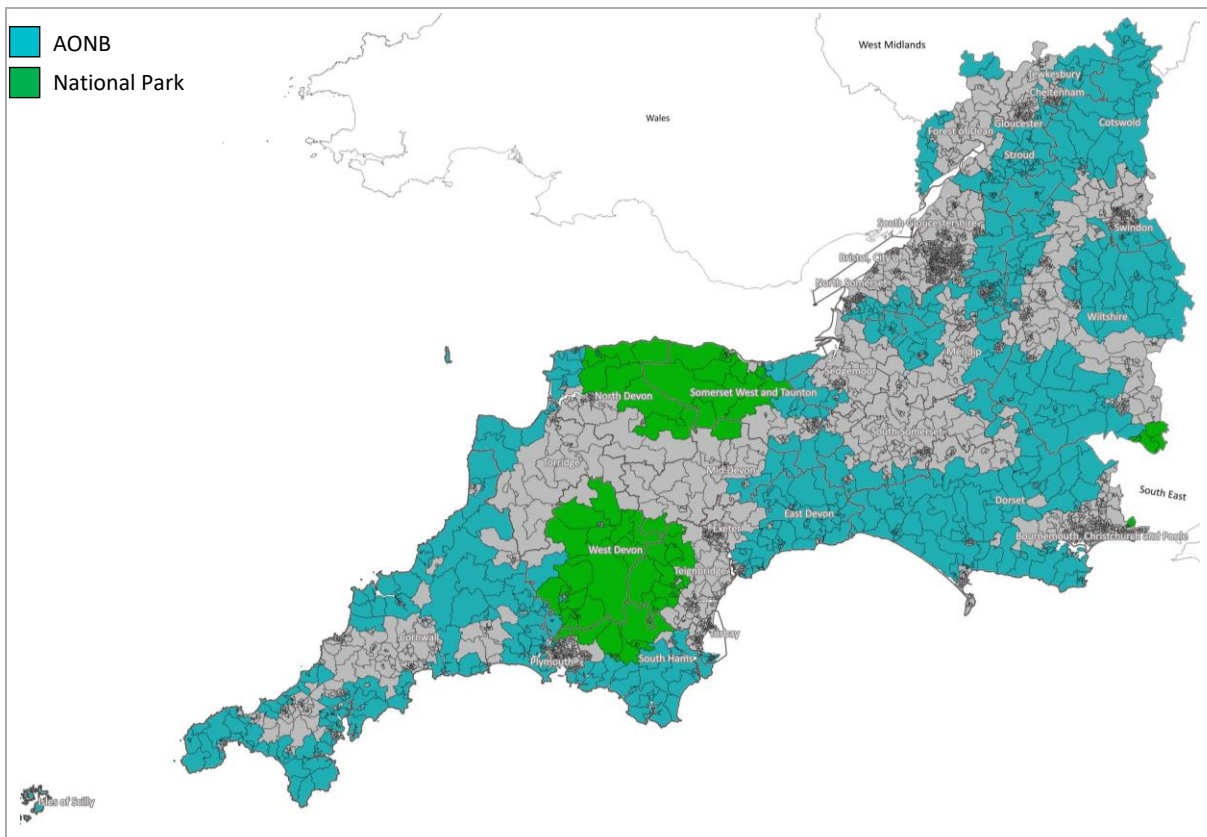


Figure 21. Areas of Outstanding Natural Beauty and National Parks in the South West (source: Natural England³¹ licensed under the Open Government Licence v.3.0).

We modelled, using a General Linear Model in SPSS v.28.0.1.0, the 2021 affordability ratios in relation to a variety of spatial variables at the level of LSOA (Table 9 and Table 10). Overall, the model explained 56.5% of the variation in the data. We found that LSOAs are more affordable when they:

- Are outside Areas of Outstanding Natural Beauty ($p < 0.001$). LSOAs outside National Parks are also more affordable, but this was not significant in the overall model.
- Are classified as Urban City and Town; Rural Villages are the least affordable ($p < 0.001$).
- Have better Super Fast Broadband connectivity ($p < 0.001$).
- Have longer travel times by car to the nearest train stations ($p < 0.001$) and by cycle to the nearest employment centre of more than 5000 jobs ($p < 0.001$).
- Have shorter travel times by public transport to train stations ($p = 0.032$), by foot to employment centres of 100 to 499 and 500 to 4999 jobs ($p < 0.001$) and by car to employment centres of more than 5000 jobs ($p < 0.001$).
- Are in more deprived areas ($p < 0.001$).
- Are further from the coast ($p < 0.05$) in Bath and North East Somerset, Dorset, East Devon, Exeter, North Somerset, Somerset West and Taunton, South Somerset and Torbay.

Table 9. Model parameters for the relationship between 2021 affordability ratio and spatial variables in the South West.

Variable	p value	Comments
Local authority	<0.001	Significant difference in affordability ratios between LAs.
Rural-Urban classification	<0.001	Affordability: Rural village and dispersed<Rural town and fringe<Urban city and town.
Areas of Outstanding Natural Beauty (AONB)	<0.001	LSOAs outside AONBs are more affordable.
Interaction between LA and Proximity to coast	<0.05	Impact of coast varies with local authority: in coastal authorities LSOAs further from the coast are more affordable.
Percentage Super Fast Broadband	<0.001	Places with better connectivity to SFBB are more affordable.
Index of Multiple Deprivation	<0.001	Places that are more deprived are more affordable.
Travel time (mins) to		
nearest train station by public transport	0.032	LSOAs where it takes less time to get to train stations by public transport are more affordable.
nearest train station by car	<0.001	LSOAs where it takes more time to get to train stations by car are more affordable.
nearest employment area with 100-499 jobs by walking	<0.001	LSOAs where it takes less time to walk to employment are more affordable.
nearest employment area with 500-4999 jobs by walking	<0.001	LSOAs where it takes less time to walk to employment are more affordable.
employment area with more than 5000 jobs by cycling	<0.001	LSOAs where it takes more time to cycle to employment are more affordable.
employment area with more than 5000 jobs by car	<0.001	LSOAs where it takes less time to drive to employment are more affordable.

Table 10. Summary of spatial factors at the local authority level.

Local authority	Maximum Affordability Ratio, 2021	Distance to coast (km)	% LSOAs AONB	%LSOAs National Park
Bath and North East Somerset	35.6	4.2-20.0	31.3	0.0
Cotswold	34.5	16.5-44.7	70.6	0.0
Bournemouth, Christchurch, Poole	32.6	0.0-6.6	0.0	0.4
Cornwall	31.2	0.0-18.9	35.6	0.0
Dorset	30.0	0.0-39.9	40.6	0.0
Bristol	26.5	0.1-5.4	0.0	0.0
North Somerset	25.4	0.2-13.1	10.4	0.0
Cheltenham	25.4	9.1-16.2	12.0	0.0
South Hams	24.6	0.1-10.2	61.2	22.4
Wiltshire	24.2	11.7-58.9	26.7	1.8
East Devon	24.2	0.1-18.7	54.3	0.0
Teignbridge	23.8	0.2-17.6	0.0	17.9
Sedgemoor	23.5	0.1-14.7	12.9	0.0
South Gloucestershire	22.8	0.3-17.5	3.0	0.0
Mendip	21.9	11.2-32.7	15.2	0.0
North Devon	21.7	0.2-26.3	25.9	12.1
Torbay	20.2	0.2-3.4	11.2	0.0
Stroud	20.1	0.9-16.4	78.3	0.0
West Devon	19.1	1.3-29.2	29.0	58.1
Somerset West and Taunton	18.5	0.4-20.6	13.6	14.8
Forest of Dean	18.4	0.1-15.7	26.0	0.0
Exeter	18.4	0.0-5.5	0.0	0.0
South Somerset	18.1	1.7-34.7	7.8	0.0
Tewkesbury	18.0	0.9-26.0	24.0	0.0
Plymouth	17.3	0.1-4.2	5.0	0.0
Mid Devon	15.5	11.4-27.1	7.0	4.7
Torridge	15.0	0.1-20.9	18.9	0.0
Swindon	14.7	40.6-54.0	6.1	0.0
Gloucester	12.3	0.1-5.3	0.0	0.0
Isles of Scilly		0.4-0.4	100.0	0.0
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

Local authorities recognise the impact these designations, as well as flood risk, green belt etc., have on the land available for development. Paradoxically, they also commented that greenfield sites in these areas are most in demand for housing development as a result of both consumer preference the potential for developers to maximise economies and scale while minimising unit costs (compared to brownfield sites which are often smaller and subject to problematic ground conditions): *“From a development point of view, that’s where the most development pressure is at the moment, but also where the highest environmental constraints are being, especially areas of outstanding natural beauty, and also the poorest*

transport links so. So that's the dilemma that we're having to face. As planners is, you know, how far should we breach environmental quite significant environmental limits in order to boost housing numbers”.

Related to these designations, as well as the coastline, is the attractiveness of the South West as a tourism and retirement destination. The whole region has a greater level of second home ownership than other parts of England, but again this varies between and within local authorities (Figure 22; Figure 23). We can see that many of the places with high affordability ratios, substantial growth in house prices since 1997 and large shortfalls in new housing supply, as well as areas of landscape designations are also those with high levels of second home ownership.

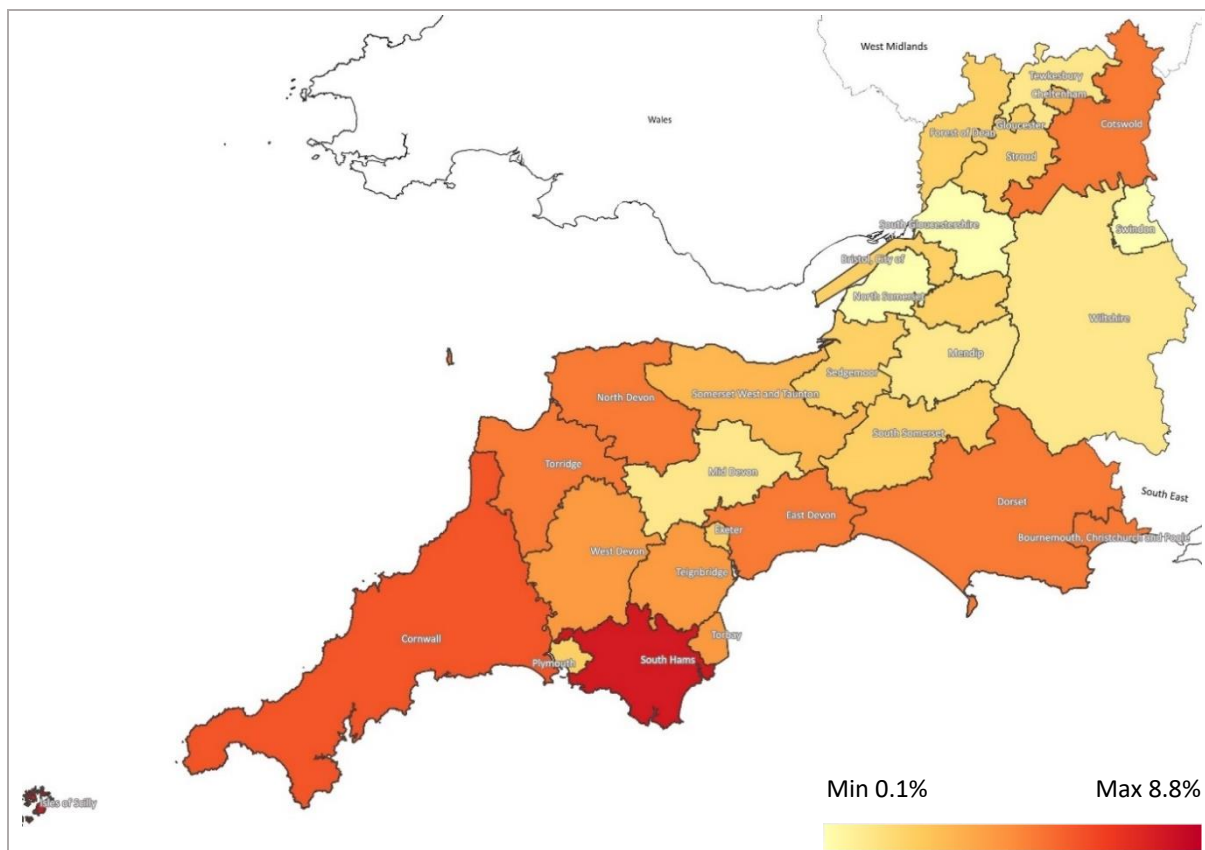


Figure 22. Proportion of homes used as second home in the South West, in 2020 (Source: Office for National Statistics³² licensed under the Open Government Licence v.3.0).

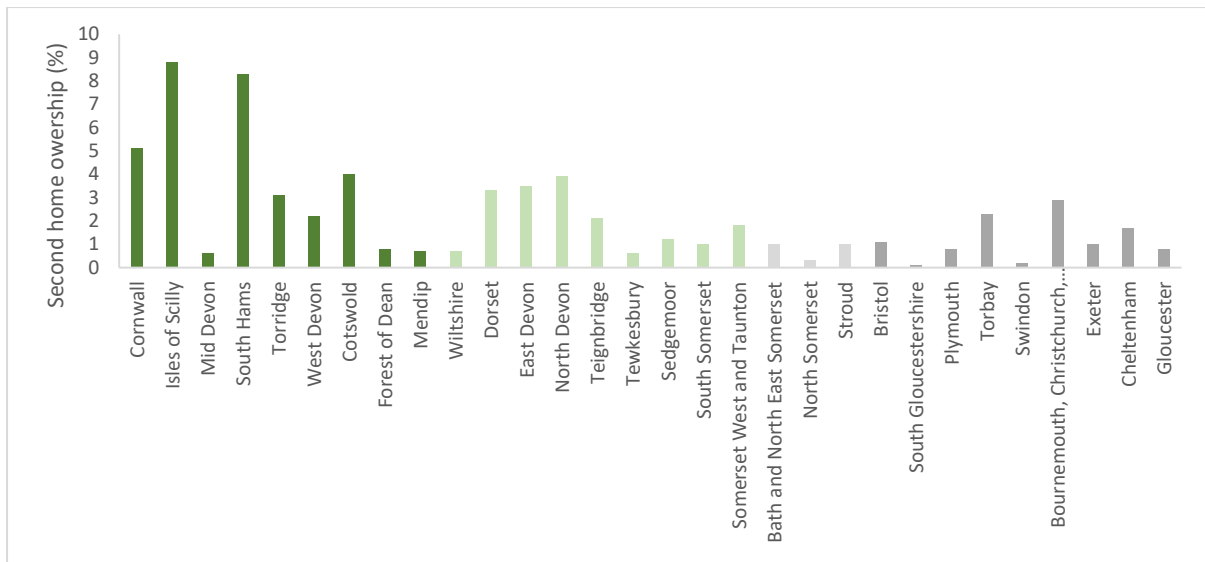


Figure 23. Proportion of homes used as second home in the South West, in 2020 (Source: Office for National Statistics³³ licensed under the Open Government Licence v.3.0).

Unfortunately, data on the proportion of second homes are only available at a local authority level, but it is likely that, particularly in the large local authorities there are areas with much higher levels of second homes than those shown in Figure 23. For example, in 2018 Cornwall Council [published analysis](#) of their council tax returns which estimated that some areas of the north coast around Padstow and Polzeath, and Fowey, St Mawes, Looe and Torpoint on the south coast have second home ownership rates of 25% to 42%, with many other coastal areas exceeding 10%. Converting these percentages into an estimated number of homes reveals that in some local authorities with the highest level of shortfalls in housing deliver, such as Bournemouth, Christchurch and Poole, Cornwall and Dorset second homes represent a large number of properties (Table 11).

Responses to the local authority survey suggest that the increase in second homes/holiday lets/Airbnb is having a detrimental impact on housing affordability, but this is geographically located in certain authorities rather than an even picture across the region.

Local authorities are struggling to assess the impact of second homes and holiday lets on certain coastal communities. One source estimated, using the Council Tax register “we’re looking at the percentage of the total stock that is lost to local people [Area X] have over 60% of housing that is either holiday or second homes ... So, that’s three in every five, isn’t it, not available to them”.

Table 11. Comparison between the difference between supply and demand of homes in the South West, and the estimated number of second homes in 2020 (ONS, 2020³⁴).

Local authority	Difference between supply and demand 1997-2021		All properties, 2020	Estimated second homes, 2020
	Number of homes	Adjusted for affordability		
Bournemouth, Christchurch, Poole	17,064	27,440	186,870	5,419
Bristol	18,737	26,455	203,490	2,238
Cornwall	8,644	19,771	274,970	14,023
Wiltshire	6,277	17,088	223,020	1,561
North Somerset	8,952	13,444	97,530	293
Dorset	4,689	12,552	179,950	5,938
Swindon	8,568	11,609	98,300	197
Sedgemoor	6,652	9,290	55,890	671
South Gloucestershire	2,947	7,242	120,910	121
Exeter	3,070	5,293	58,050	581
Plymouth	3,257	4,820	121,770	974
East Devon	642	4,691	70,890	2,481
South Somerset	1,954	4,627	78,340	783
Mendip	1,675	4,214	52,760	369
Stroud	1,611	3,741	54,160	542
Torbay	2,101	3,682	67,870	1,561
Torridge	999	3,465	32,980	1,022
Mid Devon	1,192	3,219	36,840	221
West Devon	1,151	3,164	25,970	571
Teignbridge	-146	2,775	63,130	1,326
Bath and North East Somerset	-94	2,714	84,350	844
Tewkesbury	773	2,613	42,380	254
Cheltenham	639	2,373	56,600	962
Gloucester	956	2,346	57,840	463
South Hams	179	2,305	44,960	3,732
Forest of Dean	993	2,218	38,840	311
Somerset West and Taunton	83	2,074	73,500	1,323
North Devon	-1,161	775	46,980	1,832
Cotswold	-2,426	266	44,530	1,781
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

The impact of the growth of these types of tenure was often described in stark terms; “A lot of that stock is just taken out for six months of the year, it cannot be accessed. Then for the other six months is just too expensive ... you've got impacts then that on the schools, the kids are leaving the schools, are they're going to shut eventually, the local shops. It is not busy within the winter, the pub may as well not open in the winter because they're just like ghost towns. You can walk around and there's no lights on in any of the houses. It's a very, very odd, odd feeling when you walk around in the winter”.

Right to Buy

The impact of Right to Buy has been discussed at the regional level, but looking across the South West reveals that some local authorities have sold substantial numbers of homes via this scheme (Table 12). This is important given the stakeholders commentary on the difficulty they have faced in replacing this form of affordable housing.

Table 12. Comparison between the difference between supply and demand of homes in the South West, local authority homes sold via Right to Buy and the housing waiting lists (Ministry of Housing, Communities and Local Government³⁵).

Local authority	Difference between supply and demand 1997-2021		Total sales under Right to Buy	2021 Waiting list
	Number of homes	Adjusted for affordability		
Bournemouth, Christchurch, Poole	17,064	27,440	7,742	4,672
Bristol	18,737	26,455	19,372	15,486
Cornwall	8,644	19,771	10,630	15,448
Wiltshire	6,277	17,088	11,848	3,947
North Somerset	8,952	13,444	5,175	2,306
Dorset	4,689	12,552	7,370	5,853
Swindon	8,568	11,609	7,195	4,420
Sedgemoor	6,652	9,290	4,102	2,731
South Gloucestershire	2,947	7,242	1,204	4,059
Exeter	3,070	5,293	3,292	2,782
Plymouth	3,257	4,820	9,658	8,062
East Devon	642	4,691	2,743	4,914
South Somerset	1,954	4,627	4,664	1,900
Mendip	1,675	4,214	3,727	1,636
Stroud	1,611	3,741	3,676	2,825
Torbay	2,101	3,682	2,111	1,366
Torrige	999	3,465	1,508	1,233
Mid Devon	1,192	3,219	2,885	1,547
West Devon	1,151	3,164	918	926
Teignbridge	-146	2,775	3,020	998
Bath and North East Somerset	-94	2,714	485	4,871
Tewkesbury	773	2,613	1,937	1,835
Cheltenham	639	2,373	3,490	2,325
Gloucester	956	2,346	2,928	5,316
South Hams	179	2,305	1,559	1,347
Forest of Dean	993	2,218	2,805	2,325
Somerset West and Taunton	83	2,074	4,928	3,342
North Devon	-1,161	775	1,930	2,311
Cotswold	-2,426	266	2,151	1,747
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

In most local authorities in the South West, there are fewer than around 5,000 people on local authority waiting lists (Table 12) and numbers have stayed relatively stable since 1997. However, these lists are not always kept up-to-date so it is not possible to assess the accuracy of these estimates.

This section has demonstrated that at the local authority level there is considerable variation in affordability across the South West. However, this hides the true extent of variability within the region. Some patterns are emerging in the affordability ratios, which tend to be higher in the urban areas, especially in the West of England, those closer to the South East, and in more desirable rural locations associated with coastal settings or high landscape quality. These rural areas are also, by virtue of their settings, those with high demand for housing from internal migration and tourism, lower earnings due to the dominance of service sectors and agriculture and greater constraints on land.

How much affordable housing is needed?

In this chapter we examine how much housing is needed in the South West and contrast this with local authority estimates. We then set out how much affordable housing is needed in the future. All this analysis assumes that current patterns continue as they have been in recent decades.

How much housing is needed?

The Government's '[standard method](#)' for calculating housing need relies on the ONS household projections (2014) with an adjustment applied to household growth based on the affordability ratio in the local authority. After adjustment for affordability a cap of 40% is then applied above either the household growth or the policy requirement, depending on the age of the policy. In addition, a 35% uplift is also then applied to some urban areas; in the South West this is Bristol and Plymouth.

First, we calculated the annual requirement using projected household formation, adjusted using the 2021 affordability ratios and applying the cap and/or urban uplift as per the standard method, and compared these to the Local Plan housing requirements previously compiled by Lichfields (2022).

This **estimated annual requirement with an affordability adjustment and/or using the standard method is greater than the housing requirement in Local Plans in the majority areas in the South West** (Table 13). The exceptions were Swindon, Wiltshire, Mid and North Devon, South Hams, Torridge, Gloucester, South Somerset, and Somerset West and Taunton. In some of the least affordable places in the region, such as Bristol, Cornwall, Bournemouth, Christchurch and Poole, and Cotswold District there was a relatively large discrepancy between the Local Plan requirements and those from the standard method. Importantly, these requirements do not directly consider any homes bought as second homes or holiday lets.

Table 13. Annual requirement for new homes, 2022 to 2032 using the standard method.

Local authority	Annual requirement for new homes			
	from Local Plan (Lichfields, 2022)	from projections	adjusted for affordability	with cap / uplift
Bath and North East Somerset	720	491	741	741
Bristol	1,320	1,844	2,501	3,376
North Somerset	1,049	987	1,392	1,392
South Gloucestershire	1,360	1,067	1,388	1,388
Plymouth	660	581	700	945
Torbay	494	459	600	600
Swindon	1,467	832	1,024	1,024
Cornwall	2,625	2,105	3,025	3,025
Wiltshire	2,100	1,463	2,041	2,041
Bournemouth, Christchurch, Poole	1,723	1,999	2,894	2,840
Dorset	1,464	1,306	1,977	1,880
East Devon	950	661	946	946
Exeter	600	490	650	650
Mid Devon	393	269	358	358
North Devon	431	242	340	340
South Hams	515	231	354	354
Teignbridge	621	522	764	764
Torridge	431	300	419	419
West Devon	160	218	326	224
Cheltenham	546	416	587	587
Gloucester	727	554	670	670
Tewkesbury	495	437	578	578
Cotswold	420	307	533	533
Forest of Dean	323	265	374	374
Stroud	456	482	671	671
Mendip	419	417	605	587
Sedgemoor	644	560	735	735
South Somerset	725	545	708	708
Somerset West and Taunton	995	549	726	726
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

^a Bristol and Plymouth also subjected to a 35% urban uplift.

However, one criticism of this method of assessing housing need is that it does not directly consider the shortfall in housing delivery over time. When we look at projected household formation and compare this with the number of homes required using the standard method between 2022 and 2039 (Table 14) and the shortfall between 1997 and 2021 we see it for **15 local authorities these housing requirements would be unlikely to deliver enough homes to address the historic shortfall even over this eighteen-year period.**

Table 14. Total housing required between 2022 and 2039, using the standard method with and without adjustment for affordability using the 2021 affordability ratios.

Local authority	Total requirement, with no adjustment	Standard method ¹	Additional housing	Difference with backlog from 1997-2021
Bournemouth, Christchurch, Poole	34,475	51,120	16,654	-10,795
Swindon	14,636	18,435	3,799	-7,810
Sedgemoor	9,453	13,230	3,777	-5,512
North Somerset	16,752	25,061	8,309	-5,135
Wiltshire	24,662	36,741	12,079	-5,009
West Devon	3,581	4,032	451	-2,713
Exeter	8,460	11,693	3,233	-2,061
Mid Devon	4,621	6,450	1,829	-1,390
South Somerset	9,097	12,745	3,648	-978
Torridge	4,880	7,537	2,657	-808
Torbay	7,865	10,797	2,932	-750
South Gloucestershire	18,493	24,988	6,495	-747
Mendip	6,849	10,559	3,710	-505
Dorset	21,731	33,840	12,109	-433
Cornwall	35,115	54,459	19,344	-427
Gloucester	9,683	12,053	2,370	24
Forest of Dean	4,261	6,737	2,476	258
Stroud	8,025	12,082	4,057	316
South Hams	3,715	6,370	2,655	350
Tewkesbury	7,394	10,403	3,009	395
Cheltenham	7,374	10,566	3,192	818
East Devon	11,194	17,021	5,827	1,136
North Devon	4,048	6,125	2,077	1,302
Somerset West and Taunton	9,317	13,069	3,752	1,678
Bristol	32,563	60,763	28,200	1,745
Teignbridge	8,811	13,745	4,934	2,159
Bath and North East Somerset	8,248	13,330	5,082	2,368
Plymouth	9,739	17,016	7,277	2,457
Cotswold	5,106	9,592	4,486	4,221
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

¹From Table 13, over 18 years.

However, although this suggests that for half the local authorities the backlog of housing would be cleared, the time taken to do so may be unacceptable. The **estimated years to clear the backlog vary by local authority from one year in Cotswold District to several decades in other local authorities** (Table 15). Also, the difference between supply and demand does not take into account that many homes may be second homes and therefore the shortfall in many areas in the South West may be far greater.

Table 15. Years to clear the backlog of housing using standard method and adjusted annual requirement assuming five years to clear backlog.

Local authority	Annual requirement	Years to clear backlog	Annual requirement to clear backlog in five years
Cotswold	533	1	586
North Devon	340	7	495
Bath and North East Somerset	741	10	1,283
Somerset West and Taunton	726	10	1,141
Teignbridge	764	10	1,319
Plymouth	945	12	1,909
Cheltenham	587	13	1,062
East Devon	946	14	1,884
South Hams	354	16	815
Tewkesbury	578	16	1,101
Forest of Dean	374	16	818
Bristol	3,376	17	8,667
Stroud	671	17	1,419
Gloucester	670	18	1,139
Cornwall	3,025	18	6,980
Dorset	1,880	19	4,390
South Gloucestershire	1,388	20	2,837
Mendip	587	20	1,429
Torbay	600	23	1,336
South Somerset	708	23	1,633
Torrige	419	23	1,112
Wiltshire	2,041	25	5,459
North Somerset	1,392	29	4,081
Exeter	650	29	1,708
Bournemouth, Christchurch, Poole	2,840	30	8,328
Mid Devon	358	32	1,002
Sedgemoor	735	44	2,593
Swindon	1,024	55	3,346
West Devon	224	126	857
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town

Given that Local Plans are developed for ten years, it is presumably not desirable that 28 local authorities require longer than this period to address the shortfall in housing delivery over the last 25 years. Explicitly adjusting the housing delivery required to clear the backlog of housing in 5 years and deliver the required new homes reveals the scale of increase that would be needed to address this historic shortfall (Table 15). **Many places would need to double their current requirements**, with some places, including Bristol, Cornwall, Bournemouth, Christchurch and Poole, Swindon and Dorset requiring several thousand new homes to be built over this relatively short period. This equates to around 70,000 homes per

year over this five-year period. As the report has already indicated, **this is a challenge which local authorities and housing associations do not currently have the means to meet.**

Using the forecasted affordability ratios instead of the standard method (i.e. without applying a cap) reduces the number of years required to clear the backlog (Table 16). Nevertheless, in many local authorities the time taken may still be unacceptably long.

Table 16. Total housing required between 2022 and 2039, using the standard method with and without adjustment for affordability using the forecast affordability ratios to 2039.

Local authority	Total requirement, with no adjustment	Total requirement with adjustment ¹	Years to clear backlog	Annual requirement to clear backlog in five years
Cotswold	5,106	9,465	1	579
North Devon	4,048	5,909	7	483
Bath and North East Somerset	8,248	13,049	10	1,268
Somerset West and Taunton	9,317	12,814	11	1,127
Teignbridge	8,811	13,452	11	1,302
Cheltenham	7,374	10,963	12	1,084
East Devon	11,194	16,536	16	1,857
Tewkesbury	7,394	10,157	17	1,087
Dorset	21,731	34,989	17	4,454
Gloucester	9,683	12,145	17	1,144
Stroud	8,025	11,712	18	1,399
South Hams	3,715	5,949	19	792
Forest of Dean	4,261	6,361	19	797
Cornwall	35,115	53,193	20	6,909
South Gloucestershire	18,493	25,114	20	2,844
Mendip	6,849	10,482	21	1,425
Torbay	7,865	10,678	24	1,330
South Somerset	9,097	12,375	25	1,613
Wiltshire	24,662	36,065	27	5,421
West Devon	3,581	5,680	27	948
Bournemouth, Christchurch, Poole	34,475	52,315	28	8,394
Exeter	8,460	11,795	29	1,714
Torridge	4,880	7,054	29	1,085
North Somerset	16,752	24,959	29	4,075
Mid Devon	4,621	6,371	33	998
Bristol	32,563	46,513	34	7,875
Plymouth	9,739	12,205	35	1,642
Sedgemoor	9,453	12,941	48	2,577
Swindon	14,636	18,854	50	3,369
Mainly rural ¹⁴	Largely rural	Urban with significant rural	Urban city and town	

How much of this housing should be affordable?

We have used forecasted house prices for each local authority area to estimate the mortgage repayment costs for each local authority from 2022 to 2039. Using the ratio between annual earnings, and each decile of household income from 2011 to 2018, coupled with forecast annual earnings has provided an estimate of household income to 2039.

Taking the generally accepted figure that those spending more than 40% of their income on housing costs have a housing affordability problem we have estimated for each decile the proportion of people spending more than 40% of household income on mortgage repayments, and therefore likely to be in need of some form of affordable housing in the future.

These estimates reveal that even **median prices housing remains unaffordable for most households in many parts of the South West**. For example, those in Bath and North East Somerset would need to be in the 80th percentile of household income before mortgage costs become affordable (Table 17). Only in Plymouth, Gloucester, Torbay, Sedgemoor and Torridge would mortgage costs be affordable for those on median incomes. What this means is that the percentage of new homes that would need to be affordable would be relatively high, for example 70% in Bath and North East Somerset, Bournemouth, Christchurch and Poole, and Wiltshire, at one extreme and 30% in Plymouth and Torbay at the other. **In total an estimated 15,454 affordable homes would need to be delivered for those on median incomes across the region in 2022, increasing to 16,245 by 2039.** On average this equates to around 17,282 affordable homes out of a total of 28,337 (61%).

Looking at homes priced in the lowest quartile suggests a more modest requirement. For these homes, which are likely to be smaller so may not be suitable for families, household income would need to be in the 60th percentile for these mortgages to be affordable in Bath and North East Somerset (Table 18). In the more affordable locations, such as Plymouth and Gloucester, Somerset and Devon, those with a household income in the 30th percentile would spend 40% of their income on mortgage repayments. Across the South West percentage of affordable homes needed in 2022 ranges from 10% in Plymouth, Gloucester, Torbay, Sedgemoor and Torridge the 50% Bath and North East Somerset, Bournemouth, Christchurch and Poole, and Cotswold, but this increases to 20-30% and 60-70% by 2039. **For those with household incomes in the lowest quartile, an estimated 9,626 affordable homes would need to be delivered across the region in 2022, increasing to 11,069 by 2039.** On average this equates to around 11,371 affordable homes out of a total of 28,337 (40%), far greater than the thresholds in many planning policies (see below). Given the concerns of stakeholders in relation to the tenures, and affordability of affordable housing, and the difficulties in delivering homes for social rent these requirements will be challenging to achieve.

In the next section we examine how affordable homes are defined and delivered in the South West, drawing on a review of planning policy and the interviews with stakeholders.

Table 17. Estimated number of affordable homes needed each year, 2022 to 2039, based on the numbers of new households who would spend more than 40% of their household income on mortgage payments for a median priced home.

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Bath and NE Som.	417	434	486	499	547	557	554	647	639	673	668	605	564	535	548	555	521	492
Bristol	1,433	1,461	1,507	1,517	1,544	1,518	1,570	1,831	1,856	1,910	1,963	1,871	1,793	1,807	1,827	1,853	1,802	1,739
North Somerset	865	849	889	868	1,052	1,030	1,028	1,030	1,001	1,020	954	955	931	908	910	888	870	844
South Gloucestershire	734	878	886	863	866	848	862	855	849	860	834	837	811	794	804	800	910	887
Plymouth	179	249	266	258	300	309	305	290	284	315	313	270	243	233	259	337	308	294
Torbay	186	188	252	255	252	259	252	242	246	236	225	227	219	225	226	230	219	208
Swindon	432	426	419	516	527	517	538	518	528	544	556	551	523	513	621	630	599	551
Cornwall	1,567	1,557	1,602	1,571	1,987	1,981	1,898	1,890	1,835	1,865	1,767	1,696	1,644	1,571	1,634	1,609	1,524	1,459
Wiltshire	1,279	1,270	1,307	1,242	1,267	1,254	1,272	1,293	1,273	1,294	1,225	1,201	1,370	1,310	1,310	1,272	1,172	1,105
Bourne., Christ., Poole	1,904	1,929	2,017	2,050	2,112	2,144	2,156	2,142	2,142	2,165	2,135	2,046	2,007	1,967	1,979	1,988	1,908	2,092
Dorset	1,326	1,367	1,412	1,432	1,445	1,513	1,490	1,489	1,493	1,461	1,406	1,552	1,498	1,435	1,412	1,415	1,323	1,262
East Devon	460	563	574	576	601	604	595	594	581	578	550	543	534	511	510	503	482	469
Exeter	313	300	388	399	412	419	412	406	413	421	416	382	368	373	391	399	443	422
Mid Devon	153	153	152	145	195	193	182	177	182	178	170	167	164	165	171	171	163	154
North Devon	167	167	175	178	178	183	175	180	175	178	164	157	156	149	150	177	168	162
South Hams	188	227	223	232	243	245	226	239	247	234	211	204	190	197	193	200	183	174
Teignbridge	407	499	495	477	497	484	484	463	458	453	424	433	413	410	409	413	398	436
Torridge	180	175	185	179	182	182	173	170	168	159	148	142	138	132	132	131	125	151
West Devon	180	208	222	210	213	213	205	203	198	194	177	172	176	191	194	192	182	176
Cheltenham	282	345	418	397	417	425	421	444	441	454	456	440	444	430	438	442	417	393
Cotswold	364	425	438	448	444	454	456	464	461	455	442	416	400	395	389	382	407	384
Forest of Dean	207	211	210	207	206	228	228	226	229	226	205	193	183	184	181	174	164	148
Gloucester	274	271	281	269	279	271	281	274	271	281	277	275	257	256	334	337	329	304
Stroud	353	422	438	424	425	492	480	490	474	479	464	437	424	408	412	406	380	365
Tewkesbury	314	365	376	368	364	360	353	353	347	350	335	325	319	306	311	305	296	285
Mendip	314	328	399	389	378	388	387	386	377	356	329	324	318	314	302	349	341	323
Sedgemoor	306	312	305	306	307	302	310	307	303	299	286	291	351	335	329	316	309	292
South Somerset	308	310	301	380	372	373	375	355	362	349	336	329	315	306	311	372	352	328
Som. West and Taun.	368	367	377	372	384	384	374	379	368	375	361	345	350	400	403	405	369	347

Table 18. Estimated number of affordable homes needed each year, 2022 to 2039, based on the numbers of new households who would spend more than 40% of their household income on mortgage payments for a lower quartile priced home.

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Bath and NE Som.	298	310	347	356	391	398	396	404	400	504	501	454	423	401	411	416	390	369
Bristol	955	974	1,005	1,011	1,029	1,265	1,308	1,308	1,325	1,365	1,402	1,336	1,281	1,290	1,305	1,324	1,287	1,242
North Somerset	577	566	593	579	601	735	735	736	715	728	681	682	665	649	650	634	622	603
South Gloucestershire	587	585	591	575	577	565	575	570	566	573	695	698	676	661	670	667	650	633
Plymouth	60	124	133	129	150	154	153	145	142	157	156	135	122	117	194	202	185	177
Torbay	62	63	63	64	63	130	126	121	123	118	113	114	109	112	113	115	110	104
Swindon	216	213	209	310	316	310	323	311	317	326	334	330	314	308	310	315	399	368
Cornwall	940	934	961	942	994	990	949	945	917	933	884	848	1096	1047	1090	1073	1016	972
Wiltshire	852	847	871	828	845	836	848	862	849	863	816	801	978	936	936	909	837	789
Bourne., Christ., Poole	1,360	1,378	1,441	1,464	1,509	1,531	1,540	1,530	1,530	1,546	1,525	1,461	1,433	1,686	1,696	1,704	1,636	1,569
Dorset	758	781	1,008	1,023	1,032	1,080	1,064	1,064	1,066	1,043	1,004	970	936	1,077	1,059	1,061	992	946
East Devon	276	281	287	288	300	302	298	396	387	386	367	362	356	341	340	336	321	313
Exeter	250	240	259	266	275	279	275	271	276	281	278	255	307	311	325	332	316	302
Mid Devon	76	77	76	72	78	77	109	106	109	107	102	100	98	99	102	102	98	92
North Devon	67	67	70	71	71	110	105	108	105	107	99	94	94	90	90	88	84	81
South Hams	113	114	149	155	162	164	150	136	141	134	121	116	108	113	110	114	105	100
Teignbridge	244	249	248	318	331	323	323	308	305	302	283	289	275	273	273	276	265	249
Torridge	45	44	46	45	45	45	43	85	84	80	74	71	69	66	66	66	62	60
West Devon	108	104	111	105	107	106	102	135	132	129	118	115	117	109	111	110	104	101
Cheltenham	225	230	239	227	238	243	301	317	315	324	326	314	317	307	313	316	298	281
Cotswold	260	319	329	336	333	341	399	406	403	398	387	364	350	346	341	334	310	290
Forest of Dean	124	127	126	124	123	114	114	113	153	151	136	129	122	122	121	116	109	99
Gloucester	137	135	140	134	140	135	141	137	135	140	138	206	193	192	201	202	198	182
Stroud	282	281	292	282	283	281	274	350	339	342	331	312	303	291	294	290	271	261
Tewkesbury	188	183	188	184	243	240	235	235	231	233	223	217	213	204	207	203	197	190
Mendip	189	197	200	195	252	258	258	257	251	238	220	216	212	209	202	199	195	185
Sedgemoor	76	156	152	153	153	151	155	153	151	150	143	145	140	134	131	189	185	175
South Somerset	154	155	150	152	149	224	225	213	217	209	202	197	189	184	187	186	176	164
Som. West and Taun.	147	147	151	223	230	231	225	227	221	225	216	207	210	200	202	203	184	173

How is affordable housing delivered?

How is affordable housing defined?

The policy review investigated all Local Plan and Core Strategy policies across 30 South West local authorities and Neighbourhood Plans within the local authority areas to aid in understanding how affordable housing policy works and delivers at local level. All the local authorities in the South West had an affordable housing policy in an adopted local development plan document, the Core Strategy or Local Plan. The National Planning Policy Framework (NPPF) definition of affordable housing, found in Annex 2, is most used in Local Plans and Neighbourhood Plans:

“Affordable housing: housing for sale or rent, for those whose needs are not met by the market (including housing that provides a subsidised route to home ownership and/or is for essential local workers); and which complies with one or more of the following definitions:

a) Affordable housing for rent: meets all of the following conditions: (a) the rent is set in accordance with the Government’s rent policy for Social Rent or Affordable Rent, or is at least 20% below local market rents (including service charges where applicable); (b) the landlord is a registered provider, except where it is included as part of a Build to Rent scheme (in which case the landlord need not be a registered provider); and (c) it includes provisions to remain at an affordable price for future eligible households, or for the subsidy to be recycled for alternative affordable housing provision. For Build to Rent schemes affordable housing for rent is expected to be the normal form of affordable housing provision (and, in this context, is known as Affordable Private Rent).

b) Starter homes: is as specified in Sections 2 and 3 of the Housing and Planning Act 2016 and any secondary legislation made under these sections. The definition of a starter home should reflect the meaning set out in statute and any such secondary legislation at the time of plan-preparation or decision-making. Where secondary legislation has the effect of limiting a household’s eligibility to purchase a starter home to those with a particular maximum level of household income, those restrictions should be used.

c) Discounted market sales housing: is that sold at a discount of at least 20% below local market value. Eligibility is determined with regard to local incomes and local house prices. Provisions should be in place to ensure housing remains at a discount for future eligible households.

d) Other affordable routes to home ownership: is housing provided for sale that provides a route to ownership for those who could not achieve home ownership through the market. It includes shared ownership, relevant equity loans, other low cost homes for sale (at a price equivalent to at least 20% below local market value)

and rent to buy (which includes a period of intermediate rent). Where public grant funding is provided, there should be provisions for the homes to remain at an affordable price for future eligible households, or for any receipts to be recycled for alternative affordable housing provision, or refunded to Government or the relevant authority specified in the funding agreement.” (MHCLG, 2021)

Local Plans and Neighbourhood Plans also commonly reference the NPPF Paragraph 63b *“the objective of creating mixed and balanced communities”*. The policies rely on the NPPF definition of Affordable Housing where they have been adopted since 2018. In some of the older local development plan documents the definition of affordable housing and policy wording is more simplistic, aiming for an overall percentage or mix across the local planning authority area with negotiation with the developer on viability stated or clearly implied.

Local authority and housing association stakeholders highlighted their concerns about the way affordable housing is defined:

“[Affordable housing] is just the wrong word. It's just not affordable anymore and hasn't been for some time.”

All questioned the definition of affordable housing, suggesting that much of what is now defined as affordable is *“not actually affordable housing is it?”*. They often felt that the principles of “affordability” set out in, for example, the NPPF – or common housing products such as shared ownership – do not accurately reflect what households on typical incomes can afford; *“People (developers) laugh at us when we say the discounts we need ... they are used to thinking 20% discount because of how the government talk about it, like with affordable rent there is a 20% discount. So, when we're offered affordable housing for sale through S106, often the developer says 'we'll knock 20% off' and we're like 'oh no!'”*.

In addition, several participants bemoaned the complexity created by the multiple definitions of affordable housing, *“it's a debate we are having at board level right now”*.

“Over the last 12 years we've had four different philosophical approaches to affordable housing and we've had to navigate a course through that.”

“There's too many products, some of which don't help anyone.”

Although, others were more pragmatic: *“I'm pragmatic about the definition ... you can take the purest view that affordable rent is a bad idea, but will it help to verbalise that?”* Whilst shared ownership was acknowledged as an important component of housing supply to enable a whole range of buyers to access housing (*“the staircasing model is really working”*) some questioned the extent to which shared ownership should be seen as affordable housing: *“shared ownership ... it's a bit ambiguous when we say affordable housing, I think”*. This concern is resulting in local authorities re-evaluating this form of affordable housing:

“Shared ownership is not affordable in any location which is interesting because when it's a theoretically affordable housing product, it's becoming unaffordable even for median earners in a lot of the zone. So, for example, we wouldn't allow shared

ownership in specific zones or specific house sizes because it's unaffordable even at average prices".

Depending on the location, affordable rent also comes into some questioning, *"let's be honest, at the current price point in most locations, it's an intermediate market tenure"*.

Local authority respondents also bemoaned the lack of a robust 'toolkit' for assessing affordability, especially at small area level, and the lack of access to robust and up to date data, wanting *"the robustness of a national model' which could then be used to 'drill down and manipulate data...down to a parish level"*.

What do planning policies require?

Here we summarise the differing approaches in planning policy and bring in some stakeholder reflections on these.

Thresholds of affordable housing, types and tenures

Within the Local Plans reviewed, there are varying definitions and a lack of clarity over the different types and tenures of affordable housing. As shown above, the NPPF provides definitions of several types of affordable housing. The definitions are not consistent across the Local Plans and the Neighbourhood Plans reviewed, as some do not clearly state a differentiation between the types and tenures; but refer to negotiation on specific sites. This approach allows for flexibility in delivery of site allocations and major developments and for change to occur throughout the life of the Local Plan. The absence of clear definitions of types and tenure in policy does not give a clear message to developers and officers on what the local authority targets are during the Local Plan period and leaves it open to negotiation.

Affordable housing mix across the plan area is prescribed in only some cases where a target percentage of types is given, this appears in selected cases across all types of local authority. For example, in North Somerset and South Hams 82% and 77% of social rented and 18% and 23% intermediate affordable housing are sought, respectively. Swindon's Local Plan policy states *"out of town centre: 10% of dwellings should be provided on site as affordable home ownership housing and 20% of dwellings proposed in the development should be provided as affordable or social rented housing"*. On smaller sites in Torbay the mix is as follows *"one third social rented housing, one third affordable rent and one third shared ownership housing"*. The differentiation of affordable housing requirements between smaller and larger sites is also common across Local Plan policies. These set thresholds above and below which the percentage of affordable housing requirement is different. Across the South West, affordable housing requirements are generally reduced below a threshold of 10-15 dwellings or 0.3-1 hectare on small sites down to 20% and in some cases off site/commuted sums are accepted.

The importance of a clearly stated, evidence-based policy on affordable housing within the Local Plan was noted by local authority participants. However, they acknowledged that it is not adequate, in itself, to ensure an acceptable level of supply: *"If we just relied on our*

planning policy, you know at least 30% on whatever sites blah blah blah, we would be delivering about 17% affordable housing against a target of 30%".

Differentiation between urban and rural areas

The more recent Local Plan policies reviewed, mainly those local authorities classified as Urban with City and Town, include disaggregated affordable housing targets. Strategic and site allocations are given specific targets, in some cases lower than the requirements across the rest of the local planning authority area. For example, in Gloucester, strategic allocations have varying requirements, 35% in central Gloucester compared to 20% across the rest of the area, whereas East Devon prescribes 50% to some allocations. The **differentiation between city centres and central areas with higher affordable housing requirements and the rural hinterlands which are prescribed lower percentages is evident in most of the South West policies in urban local authorities.** For example, affordable housing requirements are set at 40% in the inner areas of Bristol and Bath, with 30% in other areas of these authorities. Similarly in some largely rural areas there are some wide differentials; in the Heart of Teignbridge there is a 50% target, dropping down to 5% in some rural locations in the Teignbridge local authority area. The lowest requirement was in Torbay, which is considered to be 'Urban with City and Town', where despite a 30% requirement stated in the Local Plan, 0% affordable housing is required on brownfield sites under 15 dwellings, and there is a reduced requirement as stated: *"in order to secure additional investment in disadvantaged areas of Torbay, the Council may agree to a reduction, or zero provision, of affordable homes on sites in those areas."*

Participants noted that a more proactive approach is required. The practice of "housing enabling" is reported as widespread among local authorities in the South West: *"If we left it to the market to deliver the allocated brownfields sites, a lot of them just won't move forward because they're not profitable enough. Whereas, if we take our land to market, we can take a view about the land receipt that we get and enable the full policy to be met".*

Supplementary Planning Documents

Supplementary Planning Documents (SPDs) are a material consideration, not part of the development plan, but are widely used to build on and provide more detailed advice or guidance on affordable housing policies including tenure, mix and specifications. The SPDs related to affordable housing we reviewed were more prescriptive than the Local Plan policies, in line with their status. The use of SPDs to respond to developing policy areas is common as they can be adopted in a shorter timeframe than other local development plan documents and provide an opportunity to build upon the Local Plan policies. The inclusion of more detailed affordable housing policies in the more recent Local Plans reviewed indicate that affordable housing provision, type, tenure and quality is of increasing importance to South West planning authorities, in light of the national housing crisis. The SPDs provide an opportunity for more flexibility in terms of interpretation and delivery, as they are a material consideration in planning decisions. Other Local Plan policy documents included Bristol's Affordable Housing Practice Note which includes a preferred tenure mix

(75% Social Rent and 25% Affordable Home Ownership), are aimed at developers and described as “*guidance to help you make sure your development meets the requirements of the Local Plan.*”

Neighbourhood Plans

The Neighbourhood Plans reviewed were more varied and the inclusion of affordable housing within Neighbourhood Plans was less consistent than Local Plan policies or SPDs. Neighbourhood Plans must be in general conformity with the NPPF and development plan, and definitions were derived from these documents in most cases. Neighbourhood Plan policies look to address local housing need often identified through their own evidence base. The focus on local needs criteria is present in many of the Neighbourhood Plans, particularly those made in the first years of the legislation coming into force. This includes those in need of affordable housing on the local needs register with a local connection to the Neighbourhood Area. For example, in the Cotswolds, Lechlade Neighbourhood Plan sets out the approach in its Policy H1 that housing need will be determined based on “*who can demonstrate a local connection on first and subsequent occupation. Normally this will be secured through legal obligations*”. Local connection also features in Local Plan policies, for example, in the rural authorities of West Somerset (now merged with Taunton), North Devon and Torridge. In the West Somerset Local Plan there is an acknowledgement of the need for enabling development in the area, but it sets out a priority of occupation to households with a local connection alongside an identified need for affordable housing. **This focus on local connection appears to correspond with local authorities with relatively high levels of second home ownership.** For example, St Ives Neighbourhood Plan requires 40% affordable housing for those with a local connection, and a restriction on all new housing to ensure permanent residency and the high rates of second home ownership and low wages of local people are used as evidence to justify these policies.

Other Neighbourhood Plans have a focus on site allocations and prescribe amounts of affordable housing that each site should deliver; in some cases, like the Clutton Neighbourhood Plan in Bath and North East Somerset a provision for 100% affordable housing sites outside the housing development boundary (a rural exception site and/or redevelopment of brownfield land) is advocated in areas where local need is high.

In the following sections we report on the strategies being adopted to deliver affordable housing within the context discussed earlier of high competition for land, rising costs and associated concerns regarding viability.

Opportunities for affordable housing

Stakeholders for housing associations and local authorities commented on their approach to delivering affordable housing achieving a balance between being strategic in their decision making and seizing opportunities as and when they arise.

For example, whilst housing associations tended to express a clear desire for their development and investment portfolios to be strategically driven, all acknowledged that in

practice their developments were a mix of the opportunistic - *“sites we come across, that we either win, lose or draw”*, *“where we are at the whim of what you can pay”* - and the strategic. Strategic development was often described as the outcome of working closely with the local authorities to identify opportunities, particularly those involving public land. One housing association referred to working on a new strategic business plan but suggested that current practice was characterized by: *“opportunities come up and we take them ... we get quite a number of people just contacting us through our website saying ‘I’ve got this bit of land. The village needs some housing. Are you able to help?’”*.

Similarly, due to the current competitiveness of the market, housebuilders explained that they have less of a strategy than perhaps previously, when the longer-term market was more certain.

Local authority respondents all emphasised the crucial role of s106 in the delivery of affordable housing, often working in partnership with local housing association providers to lever additional grant funding. Most housing associations reported a 50:50 balance in their development portfolio between stock they build out themselves and the *“s106 stock”* they purchase from housebuilders. Whilst expressing a preference to shift this split in favour of more direct build-out, *“because we can focus on quality and stewardship”*, all acknowledged the continued need for housebuilder build-out to meet their own business plan targets: *“we plan to deliver XXXX number of new homes a year, we can’t do it alone”*.

Several housing associations observed the *“ebb and flow”* in this split, noting the pros and cons of both: s106 stock being highlighted as *“easier and low risk”*, *“we’ll try hard to secure them if they’re the right homes in the right place because they do represent good value for money”*, but with less flexibility and fewer opportunities to trade the stock; and direct build being noted as *“not being fettered by planning restrictions and therefore allowing benefit of true capital growth to be recycled into new supply”*. One smaller provider noted that whilst in the past *“the Board were very keen on building their own properties because they think they got better quality and they had control of design”*, more recently they had seen improved quality in s106 units.

Local authorities find, not surprisingly, the delivery of new housing and the inclusion of accommodation priced at social rent levels to be far more straightforward on council-owned sites, especially where there is a clearly stated preference for social rent levels in planning policy, and where they have secured funding from Homes England. Local authorities have also, themselves, become more active house builders. These efforts are, typically, pursued through a new local housing company or existing Arm’s Length Management Organisation. By the same token, the reverse applies to open market sites that are subject to competition from other providers, including housing associations (although there is much evidence of local authorities and housing associations collaborating in the acquisition of sites). In addition, **many local authorities in the South West do not own a lot of land, so this has limited scope to deliver the volume of affordable homes required.** In these disadvantageous contexts, local authorities must apply affordable rent levels and/or engage in lower volume, higher cost and higher risk activity:

“we’re going to struggle because we don’t have massive landholdings. So, it’s going to be scrappy bits of development. If we want to buy land, most of the land is optioned, it’s the big developers that have these options. So, we’re going to have to do the stuff that no one else wants to do, which is tricky and will cost more”.

Types of affordable housing provision

Housing associations, local authorities and housebuilders all commented on the balance in provision of different types of affordable housing.

The balance of types of affordable housing provision varied across housing associations with larger organisations tending to have a split of one third shared ownership, with two thirds either social or affordable rent. Whereas smaller organisations tend to have a higher proportion of their portfolio for social rent, some due to the legacy of stock transfer from local authorities. Ensuring the right balance between these three was observed as being about *“ensuring a sustained programme in the long term”*. Social rent was observed as *“subsidy hungry ... whereas shared ownership sells very well, and affordable rent lets well”*. At a societal level, **all participants noted the need for more social rent** *“there’s more value in a social way”* but consistently observed:

“social is more difficult to deliver where you need to meet a price and expectations for a developer and contractor, that’s a challenge ... but it is still is the forefront of our strategy where it’s viable to do so”.

Local authorities commented on the importance of having a precisely worded (i.e. one that expresses a requirement for, for example, social rents over affordable rent or shared ownership), up-to-date and evidence-based policy for affordable housing – *“everything comes down to all the testing for the Local Plan and the wording”*.

“Social rents are the key. Everyone wants to pay a social rent and our policy over the years hasn’t been specific enough, so it allows affordable rent. So, all the schemes coming forward are based on affordable rent and we know that when we come to let the properties on affordable rent, they are not affordable ... a lot of the RPs want to do social rent, but their business models haven’t allowed it”.

A number of respondents expressed frustration at how achieving planning policy targets became an end in themselves, rather than something that accurately addressed targeted housing needs: *“I was always quite proud that we very rarely have these viability arguments apart from the odd site where there was severe and infrastructure issues or whatever, and I was like ‘oh yeah, we’re always getting our 30%’ bleeding to Plymouth and then I realized it’s because our percentage really isn’t high enough, but it had to be across the board for the joint Local Plan”.*

Across the **housebuilders interviewed there was a strong preference for delivering shared ownership as the type of affordable housing due to the better rate of return**: *“shared ownership is our preference by, you know, by a long way.”* Housebuilders explained that the reason for the popularity of delivering shared ownership is that you can charge a high rate

for it. Comparatively they explained that **it can be more challenging to make social rented housing work in terms of viability**, but that a potential way to overcome this is through developing a mixture of affordable rented and shared ownership with a small amount of social rented housing: *“we get more money for the affordable rented in the shared ownership units than we do for social rent”*.

Some housebuilders explained the wider benefit of shared ownership in terms of enabling people to get onto the property ladder, who otherwise may not be able to do so in the current market (such as key workers). They also expressed that developing shared ownership helps to maximize the overall number of affordable units being provided on a site, and helps developers achieve policy compliance.

One housebuilder did reflect on the wider impact of this approach, recognizing that it is not meeting the needs of those who cannot afford shared ownership. This housebuilder also noted that this was something they had received feedback on at public consultation events, quoting a member of the public saying to them *“you said you're delivering X amount of affordable, but it's not really affordable.”*

In reaction to this, some, although not all, participant housing associations are building housing for the open market to cross-subsidise the rest of their business, with some having created subsidiary housing delivery companies.

“When the coalition government decided it no longer wanted really to invest in social rented housing, it created this affordable housing rent product which wasn't really affordable in a lot of the areas we operate ... we needed to innovate in order to continue our social purpose. The innovation essentially was let's try and create more profit to cross subsidize”.

“We do it because we have to. It's a necessity.”

Others referred to having pursued market sell cross-subsidy as an idea, when they thought grant regime *“was drying up and there wasn't much funding coming through ...but current high levels of grant means we don't need to cross subsidise”*.

One housing association highlighted that *“any profit would go back into subsidizing more sites and more schemes”* and reported cross-subsidy as having enabled the proportion of social rent in a recent development to be substantially increased. On market sale, it was highlighted that they enter into the same negotiations on affordable housing provision with local planning authorities as with any other housebuilder.

Several housing associations noted some of the *“interesting dynamics”*, or *“creative tensions”* of being in competition with one another but were emphatic about not being *“fearful of profit”*: *“it's not a bad thing, when it creates growth, generates jobs, and is re-invested in delivering more homes ... if we have surplus it's reinvested into more affordable homes.”*

Another housing association, not currently pursuing open market housing (*“we have an 100% affordable strategy”*), questioned the sustainability of this model for some other

players, suggesting that the provision of open market housing was resource hungry, *“to be a really good developer of market sale housing, the customer experience and to get those returns, requires a lot of administrative infrastructure ... you need to generate pipeline to sustain that, it becomes a self-fulfilling prophecy”*. The cross-subsidy model was also noted as only working in higher values areas, *“but in lower value areas or when the market is going down it’s less viable”*. Indeed, opinion was very mixed on the efficacy of open-market sale.

All local authorities in our sample were supporting community-led housing projects. There was a broad consensus that such provision, while small in aggregate terms, costly, and time consuming, was crucial in meeting very specific housing needs, important politically, in terms of local empowerment, and perhaps more acceptable locally as a result of its community led credentials: *“I think it’s important to empower those communities ... to give them a sense that they’re making a change for the good ... but in terms of deliver, it’s not huge ... we’ve got two schemes that are just about to get planning permission ... but that’s taken six years or so, it’s just too long basically!”*.

“A small number of houses does make a massive difference to a community. Young people are struggling to find homes in the villages they’ve been brought up in and probably work in. There is a danger of communities becoming unsustainable and retirement villages where the cleaners, the gardeners and all the rest come in from a long way out of the village”.

Delivering high quality affordable homes

Underlying the commentary regarding the types of affordable housing is the recognition, from local authorities and housing associations that: *“Housing is not a nice to have. It’s a must”*. However, they also **highlighted the importance of delivering high quality and sustainable homes**. This is seen as **interlinked with affordable provision, especially in the context of rising fuel costs and ensuring their housing stock is future proof**. As one housing association explained: *“It’s all about social value and social justice, more than surplus or margins”*. This is likely to have increased in importance since the interviews were conducted in light of large increases in energy prices.

Local authority-enabled projects, for example via the new local housing company or existing Arm’s Length Management Organisation, are often promoted as exemplars of affordable housing that meet broader policy objectives such as good urban design, sustainable development and tackling fuel poverty:

“We are trying to deliver a better product ... homes that are well designed, well built, future proofed. We can do it. It’s viable. So, other people could do it too. That’s what we’re trying to get to”.

“If we’re in control of development, it’s on our land, we are focusing on making the new development as affordable as possible. So not only will it be at social rent levels, we don’t achieve passive house standards in terms of the badge, but the properties are carbon zero. So it’s incredibly cheap for households to run their properties, and that’s the benchmark we wanted to establish as a challenge to other RPs”.

Similarly, **housing associations were categorical that their primary purpose was the delivery of affordable homes for those in housing need.** Many commented on the extent to which they still consider themselves as charitable organisations and the perceived shift towards being more commercially oriented, observing *“Ultimately, we have to be competitive, we have to prove value for money”*. One provider described their organization as *“a commercially philanthropic organisation”* and in so doing acknowledged the challenge for practice:

“Where we want to be is how do we make that into the best, most sustainable community that we possibly can ... how do we navigate that, how do we make that work so we focus on quality, stewardship, the long term, whilst having our commercial hat on.”

But others commented that maintaining the balance between their ethos and commercial interests is challenging:

“... we should be prepared to take risks in order to achieve our social purpose ... we do what we have to in order to continue to serve our social purpose, but it's always subservient to the commercial”

One housing association was emphatic that their organisation considered itself to be charitable, noting that it still receives donations from the public, sometimes hearing from local landowners *“concerned about their village, who are happy to provide us a bit of land for nothing ... they want to see it as a rural exception site with the restrictions”*.

“This is the biggest challenge for all Boards at the moment ... it's not easy because you've got competing demands for the same pound.”

As highlighted earlier, the viability of a scheme impacts on the delivery of affordable homes, in the context of increasing environmental requirements. One housebuilder explained that the combination of these requirements and high land and construction costs has often led to a decrease in design quality:

“You know you've got to push your prices and reduce your costs ... which means houses aren't as pretty as they should be in a lot of cases because you only buy the site if you squeeze the cost and squeeze the price up”.

Several housing associations referred to the *“constant”* challenge of having to balance their investment portfolio between addressing the quality of some of their existing stock *“a lot of the stock is old”* and new supply. Some also highlighted the lack of subsidy and financial support for the regeneration of existing stock. Whilst none of these participants denied the importance of – for example – addressing fire safety issues and the decarbonization agenda in relation to existing stock, this was acknowledged as financially draining: *“... building safety, fire safety, decarbonization, and net zero ... there will be business plan trade-offs somewhere likely to be in the reduction of affordable housing.”*

The importance of partnership and collaboration

Housing associations, local authorities and smaller housebuilders all highlighted the **importance of building relationships, collaboration and partnership working in delivering affordable homes**. All housing associations talked about the “*spirit of partnership*” and the positive relationships they had developed with particular housebuilders and local authorities. Whilst some described it as higher risk to work with SME developers, housing associations all tended to describe SMEs as easier to work with, and some had recently established joint ventures with SMEs to “*defray their [the SME’s] risk*”. Related to the above discussion about the quality of new homes, SMEs were broadly seen as focused on a delivering a higher quality product and more closely aligned with the ethos of housing associations:

“We do see fundamentally our relationship by being a really good partner with SME developers. So there are a number of really good, high quality, some developers that look into push environmental standards. They're not looking for the same returns and they actually want to build their reputation for different reasons other than shareholder fund. I think we see ourselves as being a flexible good delivery partners to those SME that are reliable on cash”.

Similarly, a key strategy of the small-scale housebuilders is building a local reputation.

Again, this **partnership approach was seen as intrinsically linked with quality and sustainability**. All housing associations talked passionately about long-term stewardship driving their practice: wanting to create a product that would be socially, environmentally and economically sustaining over a long period. To that end, several talked about productive partnerships with particular landowners (including local authorities and public bodies) with shared interests in the legacy of development: “*we want to work with people who want to create something more than just housing – a great place*”.

Local authorities also reflected on the housing crisis as a corporate priority for the council and the deployment of multi-disciplinary teams (including housing, planning, transport) to expedite the delivery of additional stock. This was linked to the ‘enabling’ role they see themselves taking at all stages of the development process, from identification and marketing of sites (often local authority owned), market testing and procuring development partners, development briefs, demolition and site remediation, bidding for government funding (e.g. Land Release Fund), facilitating community consultation, pre-application discussion, fast track planning application, and delivery, sometimes supported by infrastructure provision, and condition discharge. This activity might be referred to as “*de-risking*” the development process: “*Anything we can do to help improve viability by covering some of the abnormal costs ... of development, or prepping them for development is going to help ... we don’t want to be doing all this hard work and then if falls down at the planning stage*”.

Areas of innovation

The competitive market in the South West, along with high costs of construction and desire to provide high quality sustainable homes has led to several areas of innovative practice in the affordable housing sector. The housing associations and local authorities highlighted various initiatives and changes to business practice they have adopted to ensure the delivery of affordable homes in the region.

Fundamentally, long-term stewardship and ethos of the housing associations shapes many of the innovative practices.

As already mentioned, the importance of partnerships and collaboration was frequently cited as essential to delivering affordable homes and overcoming some of the barriers:

“I believe we need to open up barriers and create longer, more sustainable partnerships. It's not about this competitive nature. I think we need to look at it about who can provide the most, the best quality, the best stewardship of that land and how can we do it together”.

This included between local authorities and housing associations, for example to bring forward smaller sites. **Joint ventures with SME housebuilders are also seen as an effective mechanism as housing associations and local authorities are often unable to deliver developments on their own**, and local SMEs can be motivated by developing local reputation, and high quality sustainable homes. Similarly, local authorities enabling development via the new local housing company or existing Arm's Length Management Organisation are also promoted as exemplars of high quality affordable housing.

Housing associations are also working with the Building Better Commission to share their good practice: *“It's difficult for people to open up and share. So some of the work that we're doing with building better is about enabling this trust and understanding”*. They are also working with partners to deliver sustainable homes. For example, the Centre for Sustainable Energy in Bristol is undertaking pilots of different home standards, such as Passivhaus, EPCs and modular homes with different developers to learn what provides the most effective environmental performance: *“... we're taking that macro data that we can then share and learn amongst our peer groups”*. Another example cited was a partnership with a local Community Forest to provide one tree per new home and five trees off-site.

The **long-term performance of homes is a priority for housing association and local authorities**. This is linked to the cost-of-living crisis and a recognition that this is going to be particularly acute for those on low incomes. In response, housing associations are incorporating technology to reduce costs for residents, including heat pumps, adopting [Passivhaus for social rent](#), and eco-homes. The *“patient capital approach”* adopted by housing associations was frequently referenced as driving investment behaviour, enabling them to take longer term decisions with revenue pay back over 30-40 years, meaning that the acknowledged higher costs and time intensive nature of some of these initiatives was less of a barrier. Similarly, planning for future infrastructure needs, including digital connectivity and electric vehicle charging points were highlighted as priorities.

Environmental performance and rising construction costs are also resulting in housing associations adopting modular construction, where homes are constructed off-site. However, there was also a recognition that this is not suitable for smaller housing associations working in rural areas.

Finance linked to sustainability objectives were also seen as an enabler for innovative practice: *“funding organisations are increasingly seeing social, and environmental governance credentials as being safer investments”*.

This section has highlighted the variation in policy requirements for affordable housing. These could be seen as relatively modest given the forecasted need presented earlier, and particularly given the challenges associated with delivering truly affordable housing. The stakeholders, however, described areas of innovation, partnership working and collaboration, across housing associations, local authorities and SME housebuilders that are delivering high quality sustainable homes in the South West. However, they also set out some significant challenges presented here and in earlier sections.

Conclusions

This study has demonstrated that across all types of housing, the South West is one of the least affordable regions in England. This lack of affordability is driven by both high house prices and low earnings. The affordability of housing in the region has declined over time, so that since 1997 the gap in affordability between the South West and the regions in the Midlands and North of England, and England overall has widened. Over the same period, whilst house prices have increased by around 300%, earnings have failed to keep pace, resulting in the decreased affordability.

There is substantial variation across the region with urban locations, particularly those closer to the South East and London, and tourist destinations being the least affordable. Rural areas in the region are generally less affordable, especially where digital and transport connectivity is better.

Across the region, there is a substantial shortfall in housing delivery compared with demand, where the supply of new homes has failed to keep pace with household formation. In tourist 'hot spots' such as Cornwall, South Hams and Cotswold District, high levels of second home ownership are further increasing demand for homes. This is creating additional challenges for the viability of services and amenities, as houses are not occupied all year round. The coastal location and landscape quality of the South West also makes it attractive to those from other parts of the UK, including retirees, commuters and those able to work from home. It is unlikely that current housing need assessments are likely to deliver enough homes to address this historic shortfall and keep up with new demand, particularly in light of these additional demand-side pressures.

Projected housing need and affordability suggests that at least 60% of new homes across the region should be affordable for those with median household incomes, with 40% being affordable to those in the lowest quartile of income. This will be challenging to achieve given the current constraints on the delivery of affordable housing highlighted by stakeholders in the region, including the viability of development, especially on smaller, rural sites, lack of resources and specialist skills in local authorities, and shortages in the construction industry.

Despite these challenges, stakeholders detailed how collaboration and partnership working between housing associations, local authorities and SME housebuilders was able to deliver affordable homes. They also highlighted that the delivery of affordable homes was intrinsic to other priorities, including ensuring high quality homes and responding to climate and ecological emergencies. Such practices provide opportunities on which to build to ensure that housing is delivered in the region which is affordable and sustainable.

References

Affordable Housing Commission (2019) Defining and measuring housing affordability: An alternative approach.

<https://www.affordablehousingcommission.org/news/2019/6/6/defining-and-measuring-housing-affordability-an-alternative-approach>

Bramley, G. (2018) Housing supply requirements across Great Britain: for low-income households and homeless people. London: Crisis and National Housing Federation.

<https://www.crisis.org.uk/ending-homelessness/homelessness-knowledge-hub/housing-models-and-access/housing-supply-requirements-across-great-britain-2018/>

Bramley, G., Morgan, J., Ballantyne Way, S., Cousins, L., Houston, D. (2017) The deliverability and affordability of housing in the South West of England. RTPI Research Report no. 16.

<https://www.rtpi.org.uk/media/1949/deliverability-and-affordability-of-housing-in-the-south-west-of-england-full-report.pdf>

CRESR (2015) The impact of the existing Right to Buy and the implications for the proposed extension of Right to Buy to housing associations. <https://www.shu.ac.uk/centre-regional-economic-social-research/projects/all-projects/the-impact-of-the-existing-right-to-buy-and-the-implications>

Lamond, F., Lamond, J., & Proverbs, D. (2012). The value of rural amenities. RICS.

<https://uwe-repository.worktribe.com/output/943334/the-value-of-rural-amenities>

Lichfields (2022) Standard method for calculating housing need.

<https://lichfields.uk/standard-method-for-local-housing-needs-april-2022/>

Padley, M., Marshall, L., Valadez-Martinez, L. (2019) Defining and measuring housing affordability using the Minimum Income Standard, *Housing Studies*, 34:8, 1307-1329, DOI:

[10.1080/02673037.2018.1538447](https://doi.org/10.1080/02673037.2018.1538447)

MHCLG (2019) Housing and economic needs assessment.

<https://www.gov.uk/guidance/housing-and-economic-development-needs-assessments>

MHCLG (2021) National Planning Policy Framework.

<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

National Housing Federation (2019) Briefing: How many people need a social rented home?

https://www.housing.org.uk/globalassets/files/resource-files/nhf_briefing_how_many_people_need_a_social_rented_home_final.pdf

Office for National Statistics (2018) Annual Survey of Hours and Earnings, Low pay and Annual Survey of Hours and Earnings pension results QMI.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworking/hours/methodologies/annualsurveyofhoursandearningslowpayandannualsurveyofhoursandearningspensionresultsqmi#methodology-background>

Office for National Statistics (2020) Mortgage repayment affordability
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/mortgagerepaymentaffordability>

Office for National Statistics (2021) Private rental affordability, England.
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/privaterentalaffordabilityengland>

Office for National Statistics (2022a) Ratio of house prices to workplace-based earnings.
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepriceetoworkplacebasedearningslowerquartileandmedian>

Office for National Statistics (2022b) Private rental market summary statistics, England.
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/privaterentalmarketsummarystatisticsinengland>

Office for National Statistics (2022c) Median house prices administrative geographies, HPSSA dataset 9.
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricetornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>

Smith, J., Golland, A. (2005) Norfolk Coast Area of Outstanding Natural Beauty, the Housing Market and Affordable Housing: A study of affordable housing provision in a protected area. Three Dragons.

Tabachnick, B.G., Fidell, L.S. (2014) *Using Multivariate Statistics* (6th edition). Pearson Education, Harlow, UK.

Taylor Review of Rural Economy and Affordable Housing (2008) Living Working Countryside. Department for Communities and Local Government.
<http://www.communities.gov.uk/documents/planningandbuilding/pdf/livingworkingcountryside.pdf>

Valuation Office Agency (2019) Private rental market statistics.
<https://www.gov.uk/government/collections/private-rental-market-statistics>

Appendices

Appendix 1. Justification for the use of affordability ratios

Housing affordability can be measured through the relationship between house prices and the income of individuals or households, or the proportion of income spent on housing. There are several alternative methods for calculating housing affordability and each has its own advantages and disadvantages ([Padley et al., 2019](#)). The ratio of housing cost to income is the most commonly used method, but it does not take into account the cost of living. The Government provide median and low quartile house price and individual earnings data, as well as the resultant affordability ratio at the regional and local authority level every year, from 1997 to 2021. In addition, house price data are also provided at the MSOA and LSOA level. The problem with these affordability ratios is that because they rely on individual earnings, instead of household income and do not consider other expenditures, they do not provide an accurate picture of the affordability of housing. Another measure uses household income and the proportion of this income spent on rent or mortgage payments and assumes that households spending more than a certain proportion of their income on housing are facing an affordability problem. The proportion used varies by tenure, country and region, but is generally between 30 and 40%. This is preferable to affordability ratios as it considers monthly income and housing costs. Mortgage payments can be estimated from the house price data, down to LSOA, and the Government provide rent and mortgage affordability data at the regional level. The challenge we faced is that the Government does not consistently publish household income below the level of regions. They have provided estimated household income data for MSOAs, but only from 2014 to 2018, and is only available at the regional level between 2011 and 2018. This makes it difficult to estimate the proportion of people experiencing an affordability problem over time. We explored the relationship between the affordability ratio and the proportion of household income spent on mortgage repayments and rent to test whether the affordability ratio, which we have better data for, is statistically significantly related to mortgage and rent affordability for the 5 years for which we have all three datasets (i.e. 2014 to 2018).

We used the data described in the following sections.

Affordability ratios

The affordability ratio for buying a house is calculated through dividing the median house price by the median gross annual income of individuals, as described by the ONS ([Office for National Statistics, 2022a](#)). We used the median house price data and the median earnings for each local authority in the South West and the affordability ratio (i.e. house price / earnings).

Private rent affordability

The affordability of private renting is the proportion of household income spent on rent per month (i.e. rent price per month/household income per month*100). Using the same method as the ONS for their regional data ([Office for National Statistics, 2021](#)), we calculated rental affordability for the local authorities using the ONS data ([Office for National Statistics, 2022b](#)) and Valuation Office Agency median rent prices ([Valuation Office](#)

[Agency, 2019](#)) and the median household income for the South West by region ([Office for National Statistics, 2021a](#)).

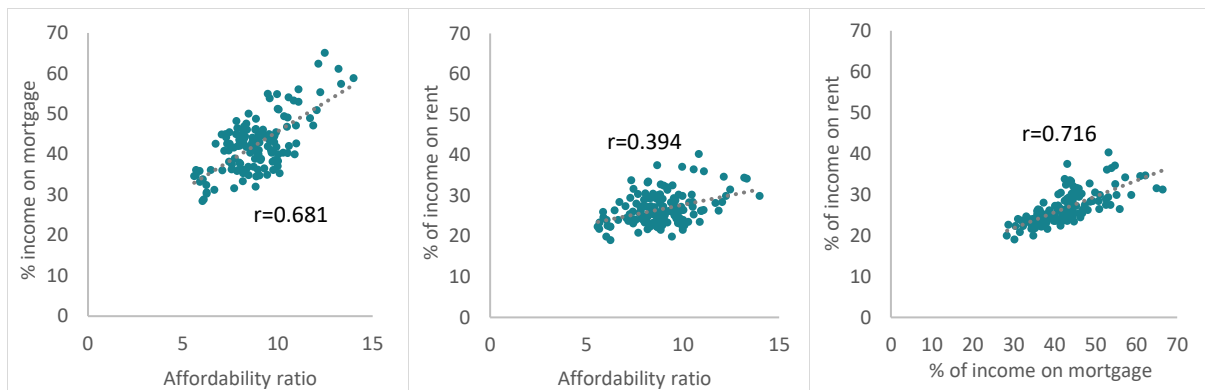
Mortgage repayment affordability

We used the ONS method for calculating the monthly mortgage repayment ([Office for National Statistics, 2020](#)) using the house price data for each local authority ([Office for National Statistics, 2022c](#)). The mortgage total amount (P) is calculated from the house price minus any deposit paid. The monthly repayment amount is calculated as:

$P[r(1+r)^n/((1+r)^n-1)]$. In this formula, (n) is the number of payments over the loan lifetime (we assumed 25 years and 12month/year = 300); (r) is the monthly interest rate (we used the annual rate for each year divided by 12). We used this to calculate mortgage affordability, which is the proportion of household income spent on monthly mortgage repayment (i.e. mortgage repayment per month/household income per month*100). The household income (which is not available for each local authorities) is utilised as the median household income for the South West ([Office for National Statistics, 2020](#)).

Agreement between the different measures

We examined the correlations between the three different measures of affordability using Pearson's correlation in SPSS (v.28.0.1.0).



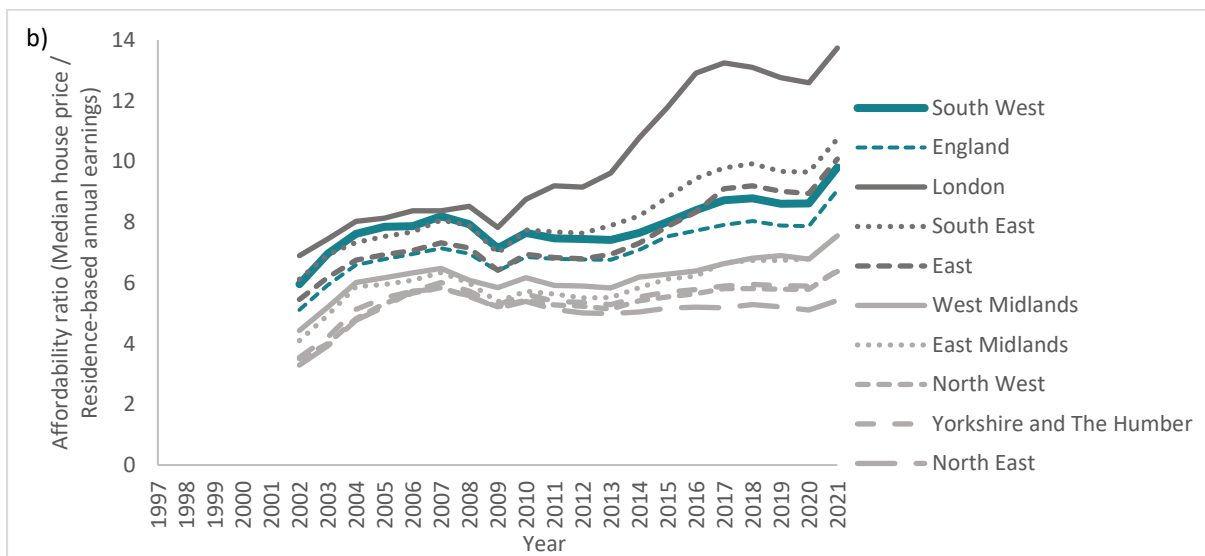
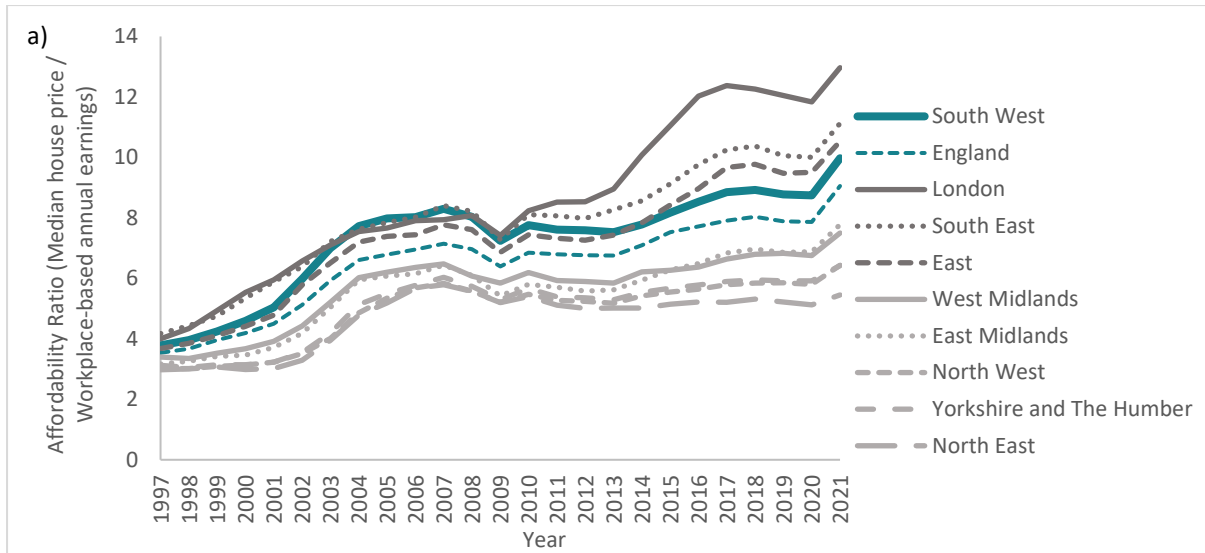
Relationships between the three measures of affordability.

We found a significant positive relationship between the three measures of affordability (all $p<0.001$). We therefore elected to use the affordability ratios to examine trends and patterns in affordability across the South West, as there data are available at a finer spatial resolution and over a longer time period, but relate this back to mortgage repayment affordability when considering housing need.

Workplace- and residence-based earnings

The affordability ratio is 10.0 when workplace-based earnings are used and 9.8 when residence-based earnings are used (see below). There is a relatively small difference between affordability ratios based on workplace- or residence-based earnings. Workplace-based earnings tend to be lower compared with residence-based earnings, £131 lower in

the North East to £1373 in the East of England in 2021, the only exceptions are the West Midlands and London where workplace-based earnings are £201 and £2216 greater respectively. We have elected to use workplace-based earnings as these provide information on earnings of people who work locally, and data are available from 1997.



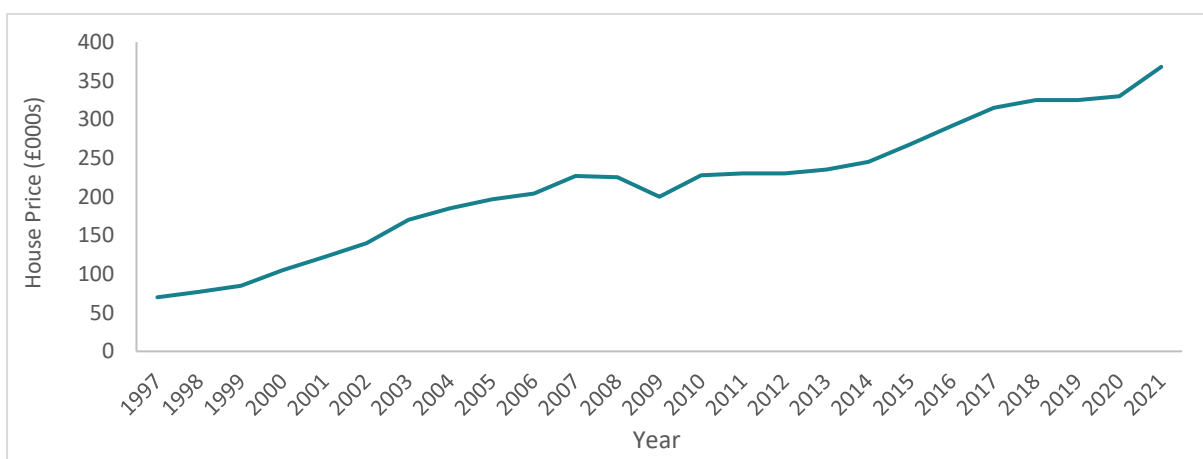
Affordability ratios 1997-2021 based on median house price and a) median workplace-based annual earnings and b) median residence-based annual earnings (Data source: Office for National Statistics licensed under the Open Government Licence v.3.0).

Appendix 2. Method for estimating house prices and earnings to 2043

House price datasets and workplace-based annual earnings have been used to calculate the affordability ratio (house price/annual earnings) for each local authority in the South West. These datasets are available as time series (obtained from ONS data) from 1997 until 2021, hence, being considered the starting point for the modelling process that estimates the future predictions from 2022 until 2043. This is the last year for which 2018-population projections are available; although we used the 2014-population projections to assess housing need as per the standard method and the last year for these is 2039. Hence the house prices and earnings are estimated until 2043, but we only use them to 2039 for calculating housing need.

Future predictions are performed using SPSS v.28.0.1.0, using the Forecasting – Time Series Modeler, with a specified selection of the ARIMA model. ARIMA stands for Autoregressive Integrated Moving Average which is a commonly accepted method of predict upcoming trends using time series data. Autoregressive models work under the assumption that future somehow would follow in the steps of the past. Therefore, if there are unexpected drastic changes in the future (due to unforeseen factors, e.g. financial crisis) the model output can be rendered inaccurate.

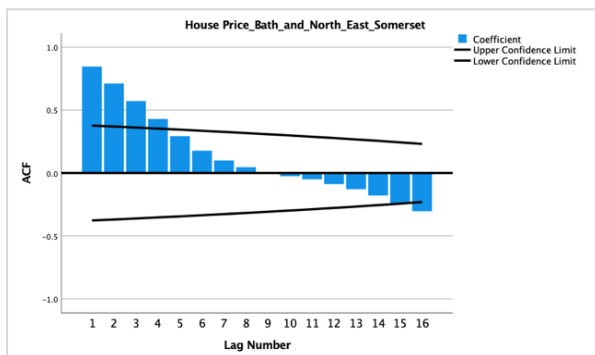
We carried out a time series forecast separately for house price and annual earnings, using the method of Tabachnick and Fidell (2014) in *Using Multivariate Statistics*. For each forecast, there are three main parameters which need to be specified for the ARIMA model, for each of the 30 local authorities in the South West. We could not carrying out the modelling for the Isles of Scilly as earnings data are only provided every ten years. These values are: autoregressive (p), difference (d) and moving average (q), input in the model in the format of three numbers separated by commas (p, d, q). To find out what values to input, we repeat a sequence of plots for each of the local authorities which suggest the most suitable values.



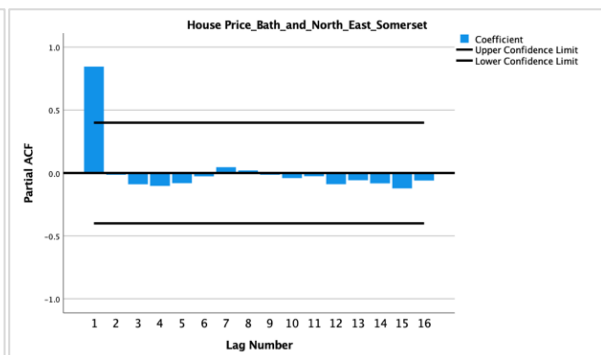
Sequence chart of house price for Bath and North East Somerset

First, we plot a graph of the data against time (sequence chart in SPSS) to check if the data are stationary or not. Stationary data is defined as a time series that fluctuates around an

average value. From the output of the sequence charts (see example above), we see that house price time series data (for each local authority from 1997-2021) is non stationary. This is further confirmed when looking at the autocorrelation function (ACF) and partial autocorrelation function (PACF) charts (see below), as they show the correlation between the one value and one period back (lag1), two periods back (lag2), up until 16 periods back. If the dataset were stationary, the correlation would be expected to be zero (below the drawn lines), and this is not the case for the house price datasets for all local authorities, i.e., confirming the non-stationarity.

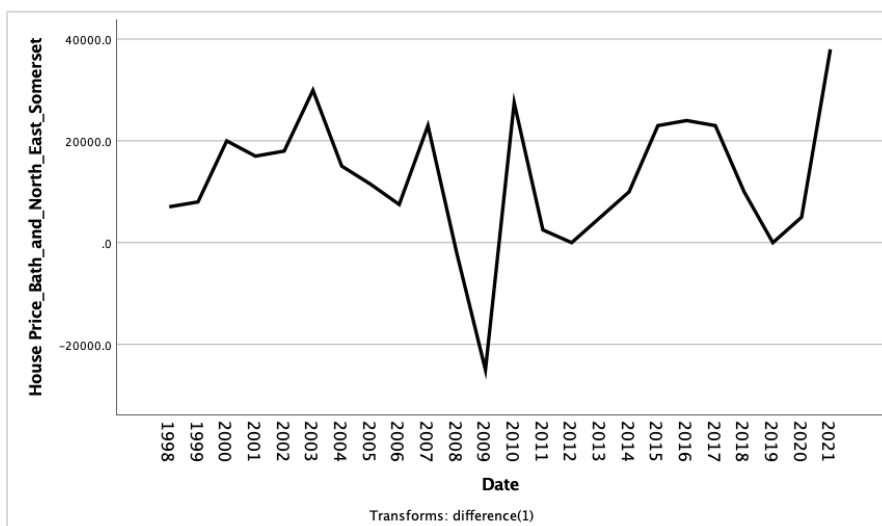


Autocorrelation function ACF plot



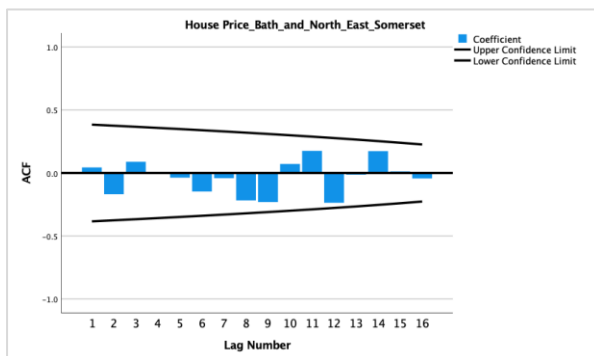
Partial Autocorrelation function PACF plot

The ARIMA modelling requires the data to be stationary, hence, we need to remove the non-stationarity by taking the first difference, as the change from one period to the next. This difference of 1 is seen in another sequence chart (see below) which illustrates the tendency of the time series to fluctuate around an average value, unlike the first sequence chart of the increasing values dataset.

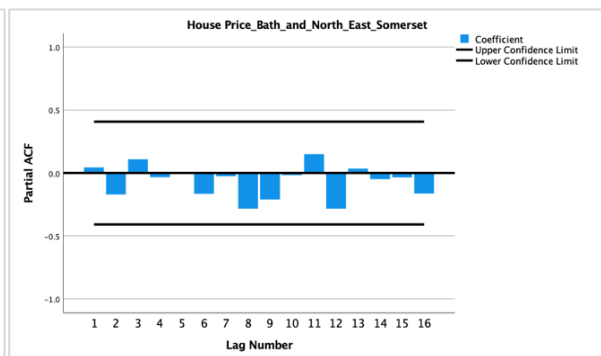


Sequence chart with difference of 1

The next step is to re-plot the ACF and PACF charts with the same difference of 1, and re-check the correlations. The output charts (see below) indicate that there are no correlations (as the blue bars are all below the horizontal lines). From these charts, we also conclude that the Autoregressive value (p) and the Moving Average value (q) to be input in the ARIMA model are 0 and 0, since there were no bars to cross the horizontal lines (from both sides) at any lag values (1-16). As for the difference value (d) it is already indicated to be 1. Eventually, we conclude the use of an ARIMA model with the following (p, d, q) criteria: (0, 1, 0). These are further confirmed when looking at the possibilities of ACF and PACF plots and the corresponding suggestions for the (p, d, q) values (Tabachnick and Fidell, 2014).



ACF plot with difference of 1



Partial ACF plot with difference of 1

The aforementioned process is repeated for each of the 30 local authorities for both median and lower quartile house price time series data, to confirm the used values of (p, d, q) for the ARIMA model. The steps are further repeated for the other dataset of the workplace-based annual earnings. Finally, using both datasets (house price and annual earnings), we calculate the predicted affordability ratios from the year 2022 until 2043.

Appendix 3. Median house price for all sales and all types of dwellings, by English regions, 1997 to 2021

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	59995	65000	71000	79995	89950	106000	127450	148000	158000	165000	175000	177950	167164	180000	180000	181500	185000	195000	209500	220000	230000	239950	242000	250000	285000
North East	46500	47500	50000	52000	53750	59500	72000	92000	105000	117000	122000	122000	118000	124950	118950	119000	121000	125000	130500	133500	135000	139995	142000	142500	150000
North West	48500	50000	52500	56000	59950	67500	80000	100710	116500	125000	133500	132500	125000	132000	127500	129000	130000	137000	142500	148000	155000	160000	165000	171000	190000
Yorkshire and The Humber	48500	49950	52000	55000	59000	66950	82500	105000	118250	125000	134600	134000	126500	135000	130000	130000	132000	138500	143000	149950	155000	160000	164950	170000	185000
East Midlands	49950	53000	56000	60000	68000	79995	99950	123000	130500	135000	142995	142000	132000	140000	136995	137495	140000	148500	157000	165250	176995	186000	192500	199950	221000
West Midlands	54000	56000	59950	65500	73500	85000	103000	125000	133000	140000	146000	145000	139950	147500	144000	145000	148000	155000	161000	168000	178000	188000	195000	200000	225000
East	62000	67750	73995	84000	95500	118500	140000	159995	169000	175000	186950	190000	175000	189000	190000	190000	197000	210000	230000	250000	275000	284995	287500	295000	325000
London	83500	94950	111000	134000	150000	174000	195000	217000	229000	240000	250000	265000	250000	280000	292948	297500	315000	353000	390000	435000	460000	467500	470000	485000	515000
South East	72500	81000	89000	106950	123000	140000	165000	181000	190000	199000	215000	220000	200000	223000	224950	225000	234000	245000	265000	290000	310000	320000	323000	330000	365000
South West	59950	65000	71000	82000	93000	115000	139950	159950	169950	175000	187995	190000	175000	187000	185000	186500	189950	199000	212000	225000	240000	249500	252000	260000	290000

Source: Median house prices for administrative geographies (existing dwellings): HPSSA Dataset 11, sheet 1a, from:

<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11>

Appendix 4. Median workplace-based annual earnings, by English regions, 1997 to 2021

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	16958	17709	17939	19107	19997	20706	21500	22418	23280	23729	24480	25549	26133	26265	26488	26822	27372	27485	27841	28496	29083	29856	30704	31791	31480
North East	15622	15778	16282	17430	17844	18076	18228	19247	20263	20613	21076	21931	22684	23124	23250	23781	24113	24904	25347	25561	25904	26355	27234	27833	27515
North West	16107	16587	16977	17863	18567	19234	19916	20717	21777	22000	22889	23740	24020	24127	24167	24603	25111	25262	25667	26220	26754	27376	28175	29459	29529
Yorkshire and The Humber	15538	16368	16527	17503	18270	18863	19659	20433	21506	21674	22307	23357	23891	23856	24119	24288	24933	24999	25194	25946	26309	26892	27879	28709	28808
East Midlands	15773	16279	16392	17352	18291	19125	19847	20691	21494	21946	22222	23271	24357	24118	24002	24626	24918	25000	25003	25474	25882	26711	28044	29043	28416
West Midlands	15878	16718	17000	17812	18756	19225	19786	20765	21447	22000	22543	23849	23958	23831	24291	24573	25328	24963	25682	26352	26837	27682	28549	29628	30000
East	16858	17584	18000	19020	19978	20495	21511	22242	22883	23517	24061	24949	25500	25379	25953	26145	26514	26817	27300	27892	28456	29153	30350	31016	30867
London	20871	21862	22487	24204	25215	26467	27455	28750	29882	30355	31484	32813	33700	33990	34396	34883	35173	35034	35303	36170	37171	38146	39013	40994	39716
South East	17375	18278	18737	19992	20907	21940	22843	23748	24229	24798	25583	26778	27458	27503	27881	28175	28315	28607	29031	29700	30236	30849	32127	32980	32810
South West	15841	16425	16727	17847	18465	19233	20000	20694	21279	21815	22665	23648	24175	24098	24306	24581	25242	25585	25950	26372	27119	27956	28721	29751	29080

Source: Median workplace-based earnings: House price to workplace-based earnings ratio, sheet 5b, from:
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 5. Affordability ratios for English regions, 1997 to 2021, based on median house prices and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	3.54	3.67	3.96	4.19	4.50	5.12	5.93	6.60	6.79	6.95	7.15	6.97	6.40	6.85	6.80	6.77	6.76	7.09	7.52	7.72	7.91	8.04	7.88	7.86	9.05
North East	2.98	3.01	3.07	2.98	3.01	3.29	3.95	4.78	5.18	5.68	5.79	5.56	5.20	5.40	5.12	5.00	5.02	5.02	5.15	5.22	5.21	5.31	5.21	5.12	5.45
North West	3.01	3.01	3.09	3.13	3.23	3.51	4.02	4.86	5.35	5.68	5.83	5.58	5.20	5.47	5.28	5.24	5.18	5.42	5.55	5.64	5.79	5.84	5.86	5.80	6.43
Yorkshire and The Humber	3.12	3.05	3.15	3.14	3.23	3.55	4.20	5.14	5.50	5.77	6.03	5.74	5.29	5.66	5.39	5.35	5.29	5.54	5.68	5.78	5.89	5.95	5.92	5.92	6.42
East Midlands	3.17	3.26	3.42	3.46	3.72	4.18	5.04	5.94	6.07	6.15	6.43	6.10	5.42	5.80	5.71	5.58	5.62	5.94	6.28	6.49	6.84	6.96	6.86	6.88	7.78
West Midlands	3.40	3.35	3.53	3.68	3.92	4.42	5.21	6.02	6.20	6.36	6.48	6.08	5.84	6.19	5.93	5.90	5.84	6.21	6.27	6.38	6.63	6.79	6.83	6.75	7.50
East	3.68	3.85	4.11	4.42	4.78	5.78	6.51	7.19	7.39	7.44	7.77	7.62	6.86	7.45	7.32	7.27	7.43	7.83	8.42	8.96	9.66	9.78	9.47	9.51	10.53
London	4.00	4.34	4.94	5.54	5.95	6.57	7.10	7.55	7.66	7.91	7.94	8.08	7.42	8.24	8.52	8.53	8.96	10.08	11.05	12.03	12.38	12.26	12.05	11.83	12.97
South East	4.17	4.43	4.75	5.35	5.88	6.38	7.22	7.62	7.84	8.02	8.40	8.22	7.28	8.11	8.07	7.99	8.26	8.56	9.13	9.76	10.25	10.37	10.05	10.01	11.12
South West	3.78	3.96	4.24	4.59	5.04	5.98	7.00	7.73	7.99	8.02	8.29	8.03	7.24	7.76	7.61	7.59	7.53	7.78	8.17	8.53	8.85	8.92	8.77	8.74	9.97

Source: Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021: House price to workplace-based earnings ratio, sheet 1c, from:

<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>

Appendix 6. Affordability ratios for English regions, 1997 to 2021, based on median detached house prices and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	5.60	5.87	6.30	6.59	7.05	7.97	9.19	10.10	10.57	10.54	11.11	10.92	9.56	10.28	10.00	9.69	9.68	10.11	10.60	10.91	11.24	11.39	11.24	11.02	12.70
North East	5.18	5.26	5.28	5.22	5.44	6.36	7.95	9.09	9.72	9.93	10.11	9.89	8.60	8.87	8.82	8.39	8.29	8.32	8.48	8.60	8.78	8.91	8.85	8.80	9.45
North West	5.43	5.46	5.63	5.93	6.30	6.97	8.21	9.32	10.10	10.45	10.49	10.32	9.45	9.74	9.62	9.21	9.12	9.30	9.55	9.65	9.91	10.05	9.94	9.67	10.94
Yorkshire and The Humber	5.31	5.19	5.29	5.31	5.47	6.36	7.73	8.90	9.53	10.06	10.22	10.06	9.00	9.49	9.12	8.93	8.82	9.00	9.37	9.48	9.60	9.85	9.68	9.75	10.76
East Midlands	4.80	4.91	5.19	5.42	5.96	6.68	8.06	8.75	9.25	9.20	9.68	9.32	7.90	8.33	8.33	8.12	8.03	8.60	9.20	9.62	10.05	10.18	9.98	9.81	10.91
West Midlands	5.67	5.77	6.24	6.73	7.20	8.01	9.35	10.23	10.86	11.00	11.09	10.48	9.81	10.20	9.88	9.56	9.48	9.89	10.32	10.44	10.81	10.91	11.03	10.80	11.67
East	5.64	6.03	6.50	7.10	7.56	8.54	9.76	10.34	10.71	10.63	11.43	11.35	9.76	10.76	10.40	10.14	10.37	10.81	11.72	12.55	13.18	13.21	12.85	12.74	13.93
London	8.62	9.71	10.45	11.77	12.21	12.85	14.02	14.61	15.06	15.63	15.88	16.76	14.39	15.45	15.70	15.77	15.92	17.70	19.12	20.32	20.85	20.25	19.61	19.32	21.02
South East	7.31	7.93	8.49	9.25	10.08	10.82	11.95	12.42	13.00	13.18	13.88	13.85	11.84	13.09	13.09	12.78	13.07	13.97	14.64	15.35	16.04	15.96	15.41	15.31	16.76
South West	5.81	6.30	6.79	7.34	8.12	9.10	10.85	11.60	11.75	11.92	12.57	12.31	10.34	11.41	11.31	10.98	10.89	11.26	11.87	12.32	12.72	12.88	12.71	12.44	14.10

Source: Affordability ratios calculated from two datasets: Median house price for detached houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1b-, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 7. Affordability ratios for English regions, 1997 to 2021, based on median semi-detached house prices and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	3.39	3.39	3.62	3.74	4.00	4.56	5.58	6.24	6.62	6.74	6.94	6.69	6.07	6.47	6.23	6.19	6.16	6.37	6.61	6.76	6.91	7.13	7.07	7.08	8.07
North East	3.14	3.17	3.19	3.10	3.14	3.46	4.39	5.42	5.92	6.06	6.17	5.93	5.29	5.41	5.16	5.05	5.05	5.02	5.13	5.18	5.13	5.16	5.01	5.03	5.38
North West	3.18	3.20	3.24	3.27	3.39	3.79	4.52	5.60	6.02	6.27	6.42	6.23	5.62	5.80	5.59	5.49	5.38	5.62	5.73	5.80	5.91	6.03	6.03	5.94	6.52
Yorkshire and The Humber	3.15	3.05	3.09	3.08	3.15	3.45	4.27	5.29	5.70	6.00	6.14	5.89	5.36	5.58	5.31	5.19	5.11	5.40	5.46	5.51	5.63	5.69	5.70	5.68	6.16
East Midlands	2.85	2.95	3.05	3.14	3.28	3.76	4.61	5.51	5.82	5.83	6.08	5.80	5.13	5.31	5.21	5.08	5.02	5.36	5.68	5.93	6.18	6.36	6.27	6.20	6.86
West Midlands	3.27	3.29	3.41	3.54	3.76	4.27	5.05	5.97	6.25	6.36	6.54	6.21	5.72	6.00	5.76	5.70	5.57	6.01	6.04	6.15	6.33	6.50	6.48	6.48	7.07
East	3.56	3.75	4.00	4.34	4.76	5.81	6.65	7.19	7.43	7.44	7.86	7.82	6.76	7.33	7.21	7.27	7.35	7.83	8.61	9.14	9.75	9.91	9.55	9.35	10.37
London	4.79	5.49	5.93	6.61	7.12	7.75	8.74	8.70	8.87	9.22	9.78	9.75	8.52	9.41	9.59	9.75	10.09	11.42	12.46	13.74	14.04	13.89	13.46	12.99	14.41
South East	4.26	4.64	4.91	5.63	6.12	6.61	7.60	7.92	8.25	8.39	8.89	8.78	7.47	8.25	8.21	8.16	8.48	8.74	9.64	10.44	10.75	10.86	10.43	10.31	11.12
South West	3.66	3.90	4.13	4.48	4.87	5.77	6.85	7.49	7.90	7.93	8.25	8.03	7.03	7.47	7.32	7.32	7.17	7.47	7.90	8.34	8.59	8.76	8.60	8.40	9.35

Source: Affordability ratios calculated from two datasets: Median house price for semi-detached houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 8. Affordability ratios for English regions, 1997 to 2021, based on median terrace house prices and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	2.80	2.87	3.07	3.14	3.43	3.86	4.38	5.20	5.41	5.69	5.92	5.77	5.36	5.71	5.59	5.59	5.66	5.86	6.11	6.21	6.28	6.28	6.19	6.13	7.23
North East	2.18	2.22	2.15	2.07	2.07	2.21	2.69	3.46	3.95	4.33	4.51	4.47	4.06	4.11	3.87	3.78	3.82	3.81	3.81	3.83	3.74	3.78	3.69	3.59	4.00
North West	2.08	2.05	2.06	2.02	2.04	2.16	2.51	3.28	3.72	4.09	4.37	4.34	3.91	3.95	3.81	3.74	3.78	3.96	4.01	4.00	4.11	4.17	4.17	4.07	4.57
Yorkshire and The Humber	2.25	2.20	2.24	2.23	2.19	2.36	2.80	3.57	4.00	4.43	4.75	4.62	4.14	4.51	4.22	4.12	4.21	4.40	4.56	4.47	4.56	4.54	4.48	4.42	4.86
East Midlands	2.22	2.27	2.35	2.42	2.51	2.98	3.73	4.35	4.75	4.92	5.20	4.98	4.27	4.46	4.37	4.37	4.41	4.69	4.88	5.06	5.22	5.35	5.17	5.16	5.74
West Midlands	2.55	2.54	2.65	2.75	2.93	3.28	3.99	4.58	5.13	5.25	5.41	5.14	4.80	5.04	4.79	4.80	4.74	5.01	4.98	5.12	5.29	5.42	5.43	5.40	5.80
East	3.02	3.18	3.33	3.65	4.00	4.64	5.67	6.20	6.47	6.51	6.86	6.81	6.08	6.44	6.36	6.43	6.49	6.79	7.51	8.17	8.61	8.58	8.40	8.32	9.14
London	3.93	4.32	4.87	5.37	5.83	6.42	7.21	7.65	7.80	7.97	7.94	8.23	7.42	8.38	8.50	8.60	9.10	10.28	11.33	12.55	12.91	12.80	12.46	12.20	13.85
South East	3.40	3.66	3.87	4.33	4.71	5.38	6.13	6.52	6.81	6.86	7.23	7.17	6.26	6.73	6.64	6.71	6.92	7.52	8.09	8.75	9.01	9.08	8.64	8.49	9.14
South West	2.97	3.11	3.35	3.67	4.06	4.68	5.80	6.40	6.81	6.88	7.28	7.06	6.20	6.64	6.48	6.43	6.34	6.57	6.94	7.20	7.37	7.51	7.38	7.23	8.08

Source: Affordability ratios calculated from two datasets: Median house price for terraced houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1d, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 9. Affordability ratios for English regions, 1997 to 2021, based on median flat/maisonette prices and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	3.06	3.28	3.60	4.03	4.38	5.07	5.77	6.24	6.31	6.33	6.54	6.34	5.66	6.21	6.23	6.30	6.39	6.55	6.82	7.19	7.39	7.20	7.00	6.92	7.62
North East	2.08	2.15	2.21	2.07	2.13	2.46	3.18	4.15	4.44	4.85	4.98	4.79	4.32	4.19	3.87	3.70	3.63	3.53	3.55	3.61	3.63	3.64	3.56	3.20	3.38
North West	2.48	2.59	2.65	2.92	3.20	3.80	4.42	5.31	5.51	5.68	5.64	5.27	4.58	4.48	4.34	4.13	3.98	4.20	4.48	4.58	4.67	4.57	4.49	4.41	4.57
Yorkshire and The Humber	2.57	2.57	2.72	2.86	3.15	3.71	4.50	5.38	5.51	5.54	5.60	5.33	4.54	4.61	4.39	4.24	4.01	4.20	4.29	4.43	4.56	4.46	4.30	4.35	4.30
East Midlands	2.03	2.12	2.26	2.42	2.68	3.18	4.03	4.83	5.07	5.21	5.26	4.83	3.90	3.93	3.75	3.70	3.65	3.80	4.16	4.32	4.44	4.42	4.17	4.03	4.33
West Midlands	2.39	2.36	2.47	2.58	2.85	3.38	4.14	4.82	5.36	5.32	5.35	5.03	4.26	4.41	4.20	4.07	3.99	4.40	4.40	4.55	4.62	4.70	4.64	4.40	4.33
East	2.43	2.56	2.72	3.05	3.25	3.90	4.65	5.22	5.57	5.66	5.92	5.77	5.02	5.28	5.20	5.16	5.20	5.41	5.79	6.18	6.59	6.60	6.49	6.29	6.51
London	3.33	3.61	4.07	4.83	5.27	5.82	6.19	6.50	6.69	6.95	7.46	7.47	7.03	7.36	7.56	7.60	8.10	9.19	10.00	10.92	11.27	11.14	10.89	10.61	11.02
South East	2.66	2.84	3.07	3.50	3.87	4.42	5.14	5.47	5.78	5.85	6.10	6.09	5.28	5.56	5.38	5.39	5.51	5.77	6.10	6.57	6.88	6.90	6.54	6.33	6.67
South West	2.65	2.74	2.99	3.19	3.60	4.24	5.13	5.80	6.02	6.12	6.29	6.05	5.44	5.60	5.51	5.39	5.35	5.47	5.61	5.88	5.97	5.97	5.85	5.71	6.36

Source: Affordability ratios calculated from two datasets: Median house price for flats or maisonettes, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1e, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 10. Affordability ratios for English regions, 1997 to 2021, based on house prices (only existing dwellings) and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	3.46	3.53	3.79	4.00	4.30	4.93	5.81	6.47	6.66	6.93	7.15	6.93	6.41	6.89	6.80	6.71	6.72	6.95	7.33	7.54	7.74	7.70	7.59	7.61	8.96
North East	2.78	2.79	2.83	2.75	2.77	3.04	3.68	4.47	4.69	5.34	5.67	5.38	4.98	5.19	4.95	4.84	4.85	4.82	4.93	4.89	4.90	4.93	4.77	4.78	5.34
North West	2.86	2.86	2.94	2.96	3.07	3.30	3.79	4.63	5.05	5.45	5.68	5.48	5.20	5.39	5.17	5.08	4.98	5.30	5.38	5.45	5.61	5.66	5.64	5.58	6.37
Yorkshire and The Humber	2.96	2.87	2.96	2.97	3.02	3.33	3.99	4.89	5.30	5.70	5.90	5.63	5.23	5.66	5.35	5.26	5.21	5.40	5.56	5.59	5.70	5.76	5.67	5.68	6.42
East Midlands	2.98	3.07	3.22	3.31	3.50	3.97	4.79	5.80	5.89	6.06	6.30	6.02	5.34	5.72	5.62	5.48	5.48	5.80	6.00	6.28	6.57	6.70	6.51	6.54	7.74
West Midlands	3.27	3.23	3.41	3.48	3.71	4.21	4.93	5.83	6.04	6.23	6.43	6.08	5.80	6.17	5.87	5.78	5.72	6.05	6.07	6.22	6.39	6.50	6.48	6.48	7.47
East	3.56	3.70	3.89	4.21	4.61	5.61	6.39	7.04	7.25	7.36	7.69	7.66	6.86	7.45	7.32	7.27	7.32	7.73	8.35	8.96	9.49	9.55	9.23	9.29	10.53
London	3.94	4.23	4.83	5.37	5.89	6.42	7.07	7.48	7.55	7.86	7.94	8.08	7.42	8.36	8.58	8.60	9.10	10.02	10.96	11.89	12.11	11.99	11.66	11.59	12.89
South East	4.03	4.27	4.59	5.10	5.74	6.27	7.00	7.54	7.76	7.92	8.40	8.22	7.28	8.18	8.03	7.99	8.12	8.52	8.96	9.65	10.09	10.13	9.80	9.79	11.12
South West	3.69	3.81	4.10	4.45	4.87	5.88	6.85	7.61	7.90	8.02	8.29	8.03	7.24	7.80	7.69	7.61	7.49	7.66	8.09	8.38	8.67	8.69	8.60	8.57	9.97

Source: Affordability ratios calculated from two datasets: Median house price for existing properties, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 11' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11>, and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 11. Affordability ratios for English regions, 1997 to 2021, based on house prices (only newly built) and workplace-based earnings

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	4.63	4.91	5.28	5.65	6.05	6.57	7.21	7.58	7.60	7.41	7.35	7.05	6.33	6.76	6.87	7.08	7.49	8.00	8.62	9.19	9.80	9.71	9.61	9.56	10.29
North East	4.16	4.37	4.66	4.76	5.04	5.39	6.85	7.69	7.85	7.28	7.21	7.06	6.17	6.27	6.02	5.93	6.20	6.45	6.71	6.81	7.33	7.52	7.71	7.90	8.54
North West	4.15	4.43	4.48	4.80	5.12	5.56	6.13	6.78	6.79	6.75	6.68	6.27	5.50	5.75	6.22	6.30	6.37	6.73	6.82	7.17	7.66	7.67	7.56	7.77	8.30
Yorkshire and The Humber	4.44	4.51	4.72	4.86	5.01	5.33	6.20	6.85	6.88	6.92	6.79	6.21	5.65	6.18	6.22	6.18	6.28	6.80	6.75	7.51	7.60	7.62	7.89	8.36	7.64
East Midlands	4.56	4.82	5.06	5.32	5.74	6.22	6.95	7.25	7.44	7.06	7.38	6.69	5.75	6.22	6.47	6.50	6.76	7.32	8.00	8.71	9.12	9.32	9.27	8.95	9.50
West Midlands	4.66	4.78	5.18	5.78	6.40	6.81	7.53	7.46	7.41	7.18	7.23	6.50	5.88	6.30	6.26	6.51	6.55	7.15	7.79	8.04	8.64	8.96	8.93	9.09	9.67
East	4.74	5.12	5.55	6.12	6.50	7.32	7.85	8.09	8.08	7.98	8.10	7.58	6.86	7.37	7.51	7.84	8.30	9.02	9.43	9.86	10.96	10.94	10.61	10.74	11.34
London	4.79	5.49	6.58	7.45	7.89	7.88	8.81	8.61	8.32	8.24	7.94	8.38	7.42	7.72	8.29	8.03	8.59	10.28	11.47	12.99	13.25	13.50	13.59	13.38	13.47
South East	5.61	6.29	6.72	7.30	7.70	7.98	8.54	8.84	8.83	8.63	8.60	8.03	7.16	7.78	8.07	8.34	8.83	9.44	10.23	10.50	11.41	11.67	11.52	11.52	11.70
South West	4.75	5.29	5.56	6.05	6.72	7.28	7.80	8.46	8.27	8.07	8.16	7.82	6.95	7.47	7.41	7.53	7.65	8.29	8.86	9.57	10.04	10.19	10.27	10.08	10.66

Source: Affordability ratios calculated from two datasets: Median house price for newly built properties, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 10' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11> and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

Appendix 12. Median residence-based annual earnings, by English regions, 2002 to 2021

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	20739	21518	22438	23313	23757	24500	25558	26145	26276	26500	26826	27375	27500	27838	28500	29085	29849	30692	31780	31490
North East	18075	18349	19311	20132	20431	21026	21872	22847	23184	23204	23769	24234	24805	25232	25660	26046	26505	27251	27906	27646
North West	19281	20031	20895	21923	22052	22833	23864	24011	24291	24166	24646	25309	25324	25711	26220	26660	27520	28511	29523	29655
Yorkshire and The Humber	18899	19618	20469	21493	21843	22381	23410	24000	23949	24108	24285	24973	25000	25114	25947	26293	26894	27921	28810	29022
East Midlands	19513	20245	20935	21950	22187	22544	23724	24549	24453	24337	24995	25379	25420	25609	26554	26556	27606	28556	29417	29212
West Midlands	19183	19803	20795	21570	22110	22559	23820	23942	23901	24321	24615	25355	25052	25598	26270	26843	27600	28278	29485	29799
East	21731	22666	23690	24393	24756	25526	26584	27303	27229	27799	27968	28369	28752	29259	30000	30234	31000	31900	33002	32240
London	25235	26201	27046	28177	28671	29841	31097	31941	32003	31852	32509	32750	32768	33109	33694	34725	35702	36851	38526	37500
South East	22880	23797	24700	25224	25924	26666	27876	28657	28822	29286	29461	29650	29869	30074	30741	31664	32251	33396	34193	33983
South West	19308	20120	21000	21667	22255	22951	23968	24523	24474	24791	25036	25630	26029	26496	26796	27533	28402	29282	30172	29585

Source: Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from:
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 13. Affordability ratios for English regions, 2002 to 2021, based on median house prices and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	5.11	5.92	6.60	6.78	6.95	7.14	6.96	6.39	6.85	6.79	6.77	6.76	7.09	7.53	7.72	7.91	8.04	7.88	7.87	9.05
North East	3.29	3.92	4.76	5.22	5.73	5.80	5.58	5.16	5.39	5.13	5.01	4.99	5.04	5.17	5.20	5.18	5.28	5.21	5.11	5.43
North West	3.50	3.99	4.82	5.31	5.67	5.85	5.55	5.21	5.43	5.28	5.23	5.14	5.41	5.54	5.64	5.81	5.81	5.79	5.79	6.41
Yorkshire and The Humber	3.54	4.21	5.13	5.50	5.72	6.01	5.72	5.27	5.64	5.39	5.35	5.29	5.54	5.69	5.78	5.90	5.95	5.91	5.90	6.37
East Midlands	4.10	4.94	5.88	5.95	6.08	6.34	5.99	5.38	5.73	5.63	5.50	5.52	5.84	6.13	6.22	6.66	6.74	6.74	6.80	7.57
West Midlands	4.43	5.20	6.01	6.17	6.33	6.47	6.09	5.85	6.17	5.92	5.89	5.84	6.19	6.29	6.40	6.63	6.81	6.90	6.78	7.55
East	5.45	6.18	6.75	6.93	7.07	7.32	7.15	6.41	6.94	6.83	6.79	6.94	7.30	7.86	8.33	9.10	9.19	9.01	8.94	10.08
London	6.90	7.44	8.02	8.13	8.37	8.38	8.52	7.83	8.75	9.20	9.15	9.62	10.77	11.78	12.91	13.25	13.09	12.75	12.59	13.73
South East	6.12	6.93	7.33	7.53	7.68	8.06	7.89	6.98	7.74	7.68	7.64	7.89	8.20	8.81	9.43	9.79	9.92	9.67	9.65	10.74
South West	5.96	6.96	7.62	7.84	7.86	8.19	7.93	7.14	7.64	7.46	7.45	7.41	7.65	8.00	8.40	8.72	8.78	8.61	8.62	9.80

Source: Affordability ratios calculated from two datasets: Median house prices for administrative geographies (existing dwellings): HPSSA dataset 11' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11> and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 14. Affordability ratios for English regions, 2002 to 2021, based on median detached house prices and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	7.95	9.18	10.09	10.55	10.52	11.10	10.92	9.56	10.28	10.00	9.69	9.68	10.11	10.60	10.91	11.24	11.39	11.24	11.03	12.70
North East	6.36	7.90	9.06	9.79	10.02	10.13	9.92	8.54	8.84	8.83	8.39	8.25	8.36	8.52	8.57	8.73	8.86	8.84	8.78	9.40
North West	6.95	8.16	9.24	10.04	10.43	10.51	10.27	9.45	9.67	9.62	9.20	9.05	9.28	9.53	9.65	9.94	9.99	9.82	9.65	10.89
Yorkshire and The Humber	6.35	7.75	8.89	9.54	9.98	10.19	10.04	8.96	9.46	9.13	8.94	8.81	9.00	9.40	9.48	9.60	9.85	9.67	9.72	10.68
East Midlands	6.55	7.90	8.65	9.06	9.10	9.54	9.15	7.84	8.22	8.22	8.00	7.88	8.46	8.98	9.23	9.79	9.85	9.81	9.69	10.61
West Midlands	8.03	9.34	10.21	10.80	10.95	11.08	10.50	9.82	10.17	9.87	9.55	9.47	9.86	10.35	10.47	10.80	10.94	11.14	10.85	11.75
East	8.05	9.26	9.71	10.04	10.10	10.77	10.65	9.12	10.03	9.71	9.48	9.69	10.09	10.94	11.67	12.40	12.42	12.23	11.97	13.34
London	13.47	14.69	15.53	15.97	16.55	16.76	17.69	15.18	16.40	16.95	16.92	17.10	18.92	20.39	21.81	22.32	21.64	20.76	20.56	22.27
South East	10.38	11.47	11.94	12.49	12.60	13.31	13.31	11.34	12.49	12.46	12.22	12.48	13.38	14.13	14.83	15.32	15.27	14.82	14.77	16.18
South West	9.06	10.78	11.43	11.54	11.68	12.42	12.14	10.19	11.24	11.09	10.78	10.73	11.06	11.62	12.13	12.53	12.68	12.46	12.26	13.86

Source: Affordability ratios calculated from two datasets: Median house price for detached houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 15. Affordability ratios for English regions, 2002 to 2021, based on median semi-detached house prices and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	4.56	5.58	6.24	6.61	6.73	6.94	6.69	6.06	6.47	6.23	6.19	6.16	6.36	6.61	6.75	6.91	7.14	7.07	7.08	8.07
North East	3.46	4.36	5.40	5.96	6.12	6.18	5.94	5.25	5.39	5.17	5.05	5.02	5.04	5.15	5.16	5.11	5.13	5.01	5.02	5.35
North West	3.78	4.49	5.55	5.98	6.26	6.44	6.20	5.62	5.76	5.59	5.48	5.33	5.61	5.72	5.80	5.93	6.00	5.96	5.93	6.49
Yorkshire and The Humber	3.44	4.28	5.28	5.70	5.95	6.12	5.87	5.34	5.55	5.31	5.19	5.11	5.40	5.48	5.51	5.63	5.69	5.69	5.66	6.12
East Midlands	3.69	4.52	5.45	5.69	5.77	5.99	5.69	5.09	5.23	5.14	5.00	4.93	5.27	5.54	5.69	6.03	6.16	6.16	6.12	6.68
West Midlands	4.27	5.05	5.96	6.21	6.33	6.54	6.21	5.72	5.98	5.76	5.69	5.56	5.99	6.06	6.17	6.33	6.52	6.54	6.51	7.11
East	5.48	6.31	6.75	6.97	7.07	7.40	7.34	6.32	6.83	6.73	6.79	6.87	7.30	8.03	8.50	9.18	9.32	9.09	8.79	9.93
London	8.12	9.16	9.24	9.40	9.77	10.32	10.29	8.99	10.00	10.36	10.46	10.84	12.21	13.29	14.75	15.03	14.85	14.25	13.82	15.27
South East	6.34	7.29	7.61	7.93	8.02	8.53	8.43	7.15	7.88	7.82	7.81	8.09	8.37	9.31	10.08	10.26	10.39	10.03	9.94	10.74
South West	5.75	6.81	7.38	7.75	7.77	8.15	7.93	6.93	7.35	7.18	7.19	7.06	7.34	7.74	8.21	8.46	8.62	8.43	8.29	9.19

Source: Affordability ratios calculated from two datasets: Median house price for detached houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 16. Affordability ratios for English regions, 2002 to 2021, based on median terrace house prices and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	3.86	4.38	5.19	5.40	5.68	5.92	5.77	5.35	5.71	5.58	5.59	5.66	5.85	6.11	6.21	6.27	6.28	6.19	6.14	7.22
North East	2.21	2.67	3.44	3.97	4.37	4.52	4.48	4.03	4.10	3.88	3.79	3.80	3.83	3.82	3.82	3.72	3.75	3.69	3.58	3.98
North West	2.15	2.50	3.25	3.69	4.08	4.38	4.32	3.91	3.92	3.81	3.73	3.75	3.95	4.01	4.00	4.13	4.15	4.12	4.06	4.55
Yorkshire and The Humber	2.35	2.80	3.56	4.00	4.40	4.74	4.61	4.13	4.49	4.22	4.12	4.20	4.40	4.58	4.47	4.56	4.54	4.48	4.41	4.82
East Midlands	2.92	3.65	4.30	4.65	4.87	5.12	4.89	4.24	4.40	4.31	4.30	4.33	4.61	4.76	4.86	5.08	5.18	5.08	5.10	5.58
West Midlands	3.28	3.99	4.57	5.10	5.22	5.41	5.15	4.80	5.02	4.78	4.79	4.73	4.99	5.00	5.14	5.29	5.43	5.48	5.43	5.84
East	4.37	5.38	5.83	6.07	6.18	6.46	6.39	5.68	6.00	5.94	6.01	6.06	6.33	7.01	7.60	8.10	8.06	7.99	7.82	8.75
London	6.74	7.56	8.13	8.27	8.44	8.38	8.68	7.83	8.91	9.18	9.23	9.77	10.99	12.08	13.47	13.82	13.68	13.19	12.98	14.67
South East	5.16	5.88	6.27	6.54	6.56	6.94	6.89	6.00	6.42	6.32	6.42	6.61	7.20	7.81	8.46	8.61	8.68	8.31	8.19	8.83
South West	4.66	5.77	6.31	6.69	6.74	7.19	6.97	6.12	6.54	6.35	6.31	6.24	6.45	6.79	7.09	7.26	7.39	7.24	7.13	7.94

Source: Affordability ratios calculated from two datasets: Median house price for detached houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1b-, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 17. Affordability ratios for English regions, 2002 to 2021, based on median flat/maisonette prices and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	5.06	5.76	6.24	6.31	6.32	6.53	6.34	5.66	6.20	6.23	6.30	6.39	6.55	6.83	7.19	7.39	7.20	7.01	6.92	7.62
North East	2.46	3.16	4.14	4.47	4.89	4.99	4.80	4.29	4.18	3.88	3.70	3.61	3.55	3.57	3.60	3.61	3.62	3.56	3.19	3.36
North West	3.79	4.39	5.26	5.47	5.67	5.65	5.24	4.58	4.45	4.34	4.12	3.95	4.19	4.47	4.58	4.69	4.54	4.44	4.40	4.55
Yorkshire and The Humber	3.70	4.51	5.37	5.51	5.49	5.59	5.32	4.51	4.59	4.40	4.24	4.00	4.20	4.30	4.43	4.56	4.46	4.30	4.34	4.27
East Midlands	3.11	3.95	4.77	4.97	5.15	5.19	4.74	3.87	3.87	3.70	3.64	3.59	3.74	4.06	4.14	4.33	4.27	4.10	3.98	4.21
West Midlands	3.39	4.14	4.81	5.33	5.29	5.34	5.04	4.26	4.39	4.19	4.06	3.98	4.39	4.41	4.57	4.62	4.71	4.69	4.43	4.36
East	3.68	4.41	4.90	5.23	5.37	5.58	5.42	4.69	4.92	4.86	4.83	4.86	5.04	5.40	5.75	6.20	6.21	6.18	5.91	6.23
London	6.10	6.49	6.91	7.10	7.36	7.88	7.88	7.42	7.81	8.16	8.15	8.70	9.83	10.66	11.72	12.07	11.90	11.53	11.29	11.67
South East	4.24	4.94	5.26	5.55	5.59	5.85	5.85	5.06	5.31	5.13	5.16	5.26	5.52	5.89	6.34	6.57	6.60	6.29	6.11	6.44
South West	4.22	5.09	5.71	5.91	6.00	6.21	5.97	5.36	5.52	5.41	5.29	5.27	5.38	5.49	5.78	5.88	5.88	5.74	5.63	6.25

Source: Affordability ratios calculated from two datasets: Median house price for detached houses, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>, and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 18. Affordability ratios for English regions, 2002 to 2021, based on median house prices (only existing dwellings) and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	4.92	5.81	6.46	6.65	6.92	7.14	6.93	6.41	6.89	6.79	6.71	6.72	6.95	7.33	7.54	7.74	7.71	7.59	7.61	8.96
North East	3.04	3.65	4.45	4.72	5.38	5.68	5.40	4.95	5.18	4.96	4.84	4.83	4.84	4.95	4.87	4.87	4.90	4.77	4.77	5.32
North West	3.29	3.77	4.59	5.02	5.44	5.69	5.45	5.21	5.35	5.17	5.07	4.94	5.29	5.37	5.45	5.63	5.63	5.58	5.57	6.34
Yorkshire and The Humber	3.32	4.00	4.88	5.30	5.65	5.88	5.62	5.21	5.64	5.35	5.26	5.21	5.40	5.57	5.59	5.70	5.76	5.66	5.66	6.37
East Midlands	3.89	4.69	5.73	5.76	5.99	6.21	5.90	5.30	5.64	5.55	5.40	5.38	5.70	5.86	6.03	6.40	6.48	6.39	6.46	7.53
West Midlands	4.22	4.92	5.82	6.00	6.20	6.43	6.09	5.81	6.15	5.86	5.77	5.72	6.03	6.09	6.24	6.39	6.52	6.54	6.51	7.52
East	5.29	6.07	6.61	6.81	6.99	7.25	7.18	6.41	6.94	6.83	6.79	6.84	7.21	7.79	8.33	8.93	8.98	8.78	8.73	10.08
London	6.74	7.40	7.95	8.00	8.32	8.38	8.52	7.83	8.87	9.26	9.23	9.77	10.71	11.69	12.76	12.96	12.81	12.35	12.33	13.65
South East	6.01	6.72	7.25	7.45	7.58	8.06	7.89	6.98	7.80	7.65	7.64	7.76	8.16	8.65	9.32	9.63	9.69	9.43	9.45	10.74
South West	5.85	6.81	7.50	7.75	7.86	8.19	7.93	7.14	7.68	7.54	7.47	7.37	7.53	7.93	8.25	8.54	8.56	8.44	8.45	9.80

Source: Affordability ratios calculated from two datasets: Median house price for existing properties, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 11' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11>, and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 19. Affordability ratios for English regions, 2002 to 2021, based on median house prices (only newly built) and residence-based earnings

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England	6.56	7.20	7.58	7.59	7.41	7.35	7.04	6.33	6.76	6.87	7.08	7.49	8.00	8.62	9.19	9.80	9.72	9.61	9.57	10.29
North East	5.39	6.81	7.66	7.90	7.34	7.23	7.08	6.13	6.25	6.03	5.93	6.17	6.47	6.74	6.78	7.29	7.48	7.71	7.88	8.50
North West	5.55	6.09	6.72	6.75	6.73	6.70	6.24	5.50	5.71	6.22	6.29	6.32	6.71	6.81	7.17	7.69	7.63	7.47	7.75	8.26
Yorkshire and The Humber	5.32	6.22	6.84	6.89	6.87	6.77	6.19	5.63	6.16	6.22	6.18	6.27	6.80	6.77	7.51	7.61	7.62	7.88	8.33	7.58
East Midlands	6.10	6.82	7.17	7.29	6.98	7.27	6.56	5.70	6.14	6.38	6.40	6.64	7.20	7.81	8.36	8.89	9.02	9.10	8.84	9.24
West Midlands	6.83	7.52	7.45	7.37	7.15	7.23	6.51	5.89	6.28	6.25	6.50	6.55	7.13	7.81	8.07	8.64	8.99	9.02	9.13	9.73
East	6.90	7.45	7.60	7.58	7.58	7.64	7.11	6.41	6.87	7.01	7.33	7.75	8.42	8.80	9.17	10.32	10.29	10.09	10.09	10.86
London	8.26	9.24	9.15	8.82	8.72	8.38	8.84	7.83	8.20	8.95	8.61	9.22	10.99	12.23	13.95	14.18	14.43	14.38	14.24	14.26
South East	7.65	8.19	8.50	8.48	8.25	8.25	7.71	6.86	7.42	7.68	7.98	8.43	9.04	9.88	10.15	10.90	11.16	11.08	11.11	11.30
South West	7.25	7.75	8.33	8.12	7.91	8.06	7.72	6.85	7.35	7.26	7.39	7.53	8.14	8.68	9.42	9.89	10.03	10.07	9.94	10.48

Source: Affordability ratios calculated from two datasets: Median house price for newly built properties, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 10' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11> and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

Appendix 20. Permanent dwellings completed in English regions, 1997 to 2019

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England																									
North East	7370	7010	7100	6640	6540	5720	5940	6710	7660	7620	8920	5160	4490	4510	5160	4830	4560	5770	7220	6670	8330	7960	8810		
North West	19840	19260	18250	18260	15560	17830	18290	18190	19090	18530	19810	16530	10810	10400	9420	10480	9980	12090	13890	13500	14910	19450	20790		
Yorkshire and The Humber	16100	13410	13400	13370	13260	13450	13710	14260	15010	15430	17220	12830	9610	8820	9860	8310	9010	9680	10580	11140	13570	13500	14760		
East Midlands	13970	14840	16320	14580	13400	14860	14440	15180	17120	16800	18650	13070	11260	10430	10490	10030	9870	11700	13640	14510	14670	15500	16900		
West Midlands	13520	13610	15160	14830	13130	14170	13980	13760	16170	14880	14370	11800	9870	8360	8470	8850	9550	10180	12470	13160	15420	16990	17250		
East	21280	20040	18260	16510	16060	17130	18720	19370	20110	21610	23100	19330	16330	15180	15330	14830	14140	14680	17330	17290	18590	18830	22210		
London	13140	14160	13890	13530	14730	15650	18360	24190	18250	21070	23190	21080	21520	15210	17550	21370	16600	18360	24390	21750	26890	18270	22000		
South East	25720	23980	22620	22100	21350	22680	24150	25300	27910	26760	30600	28500	25750	19930	20470	21390	19300	19630	24370	24380	29330	31630	34020		
South West	18580	16360	16040	15310	15500	15330	16450	17150	18160	18170	20440	18150	15120	13340	16050	14970	16070	15430	18560	18370	19830	20470	20540		

Source: Table 253: Permanent dwellings started and completed, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>.

Appendix 21. Permanent dwellings completed by private enterprise in English regions, 1997 to 2019

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England																									
North East	6540	6240	6390	6040	5770	5650	5670	6240	7170	6910	8570	4530	3640	3660	3720	3930	3760	4500	5770	5650	7410	6790	8020		
North West	16980	17010	15760	16340	13770	16740	17540	17480	18520	17500	19230	15600	9670	9270	8100	9260	8400	9500	11700	11690	12720	16760	18390		
Yorkshire and The Humber	14020	11990	12070	12480	12430	12850	13310	13930	14670	14980	16700	12290	8650	8040	8420	7590	8120	8800	9100	9890	12120	12110	12820		
East Midlands	12730	13230	15090	13390	12850	14070	13890	14400	15810	15520	17330	11340	9600	8970	8920	8680	8460	9960	11260	12230	12470	12780	14060		
West Midlands	11630	11750	12610	12740	12030	12840	12590	12660	14860	13950	12950	9710	8070	6450	6230	6880	7590	8420	9780	10580	12390	13380	13580		
East	19200	17240	16490	14810	14520	15900	17270	17230	17810	18530	20080	15070	12160	11990	11800	11770	11750	12260	13970	14610	15330	15580	18030		
London	9050	10560	10720	9830	10970	11300	14960	17700	13050	13960	15230	13190	14340	8870	10580	12310	11460	12120	16490	16370	21360	14170	16900		
South East	21840	19830	19700	19240	18570	19890	20840	22060	23430	22200	25750	22930	19480	15300	15540	16350	15180	15520	18700	19020	22850	25300	25830		
South West	16310	14700	14360	13460	13910	14090	14970	15640	16410	16390	18090	15110	11840	10320	11640	11550	11940	11530	13920	14390	15930	15860	15650		

Source: Table 253: Permanent dwellings started and completed, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>.

Appendix 22. Permanent dwellings completed by housing associations in English regions, 1997 to 2019

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England																									
North East	830	770	730	600	750	90	240	470	490	500	300	620	840	820	980	600	530	820	1070	870	770	990	620		
North West	2860	2270	2490	1930	1790	1080	750	720	590	1020	540	840	1060	1130	1230	1150	1550	2500	2160	1760	2200	2200	2190		
Yorkshire and The Humber	2080	1420	1310	890	820	590	370	330	330	460	520	540	960	750	1150	620	860	860	1460	1150	1430	1360	1810		
East Midlands	1170	1510	1210	1190	530	780	530	780	1240	1260	1300	1680	1650	1440	1400	1330	1390	1700	2270	2060	1940	2590	2810		
West Midlands	1880	1860	2530	2030	1110	1320	1300	1050	1280	930	1420	1840	1640	1810	1870	1840	1610	1640	2360	2330	2880	3210	3500		
East	2060	2760	1770	1700	1520	1170	1450	2130	2240	3080	2980	4220	4120	3100	3500	3000	2400	2370	3240	2560	3230	3190	3970		
London	4050	3570	3170	3700	3670	4290	3390	6480	5200	7110	7940	7890	7180	6120	6620	8500	5100	5940	7760	4970	4770	3320	4250		
South East	3850	4150	2920	2830	2770	2770	3310	3170	4440	4550	4830	5600	6260	4620	4800	4950	4080	4020	5380	4970	6220	6120	7900		
South West	2220	1620	1660	1810	1570	1240	1470	1500	1750	1770	2360	3060	3250	2730	4100	3330	4040	3850	4440	3580	3820	4240	4840		

Source: Table 253: Permanent dwellings started and completed, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>.

Appendix 23. Permanent dwellings completed by local authorities in English regions, 1997 to 2019

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England																									
North East	10	10	0	0	0	0	20	0	0	210	70	10	10	30	460	290	260	450	390	140	150	190	170		
North West	0	0	0	0	0	10	10	0	0	10	60	80	90	10	80	50	30	90	40	50	0	510	210		
Yorkshire and The Humber	20	0	0	0	0	0	0	0	0	0	0	0	0	40	290	90	50	20	30	110	20	20	100		
East Midlands	80	100	10	0	10	20	20	0	70	30	20	50	0	20	180	30	0	30	120	230	260	150	40		
West Midlands	30	0	0	60	0	0	90	30	20	0	10	260	150	100	380	140	330	140	330	240	150	390	180		
East	10	30	0	0	20	60	0	0	40	10	40	30	70	100	30	50	0	50	130	130	30	70	210		
London	50	40	0	0	110	60	20	10	0	0	30	10	10	210	350	570	30	280	130	420	750	770	850		
South East	40	10	20	10	10	20	0	90	40	0	20	0	0	10	130	110	70	80	290	380	260	200	280		
South West	60	40	20	20	10	0	20	10	0	10	0	0	30	280	310	90	80	30	200	420	110	370	60		

Source: Table 253: Permanent dwellings started and completed, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>.

Appendix 24. Sales of right-to-buy in English regions, 1997 to 2020

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
England											17684	12043	2869	2375	2758	2638	5943	11232	12310	12251	13442	12616	10910	10572	6850
North East											2107	1310	251	180	169	171	412	732	648	642	704	775	686	658	461
North West											3350	1820	489	194	328	185	271	518	472	497	674	838	652	690	379
Yorkshire and The Humber											2889	1971	469	376	398	444	823	1429	1449	1608	2092	2125	2072	1998	1249
East Midlands											1903	1354	319	339	330	374	779	1149	1241	1561	1888	2020	1906	1799	1079
West Midlands											2302	1582	471	348	438	494	967	1655	1587	1613	1914	2063	1903	1909	1145
East											1085	795	156	287	263	255	683	1173	1269	1205	1295	1122	779	787	594
London											2198	1862	397	247	380	311	1055	2950	4091	3591	3136	2149	1709	1469	1128
South East											1142	875	203	277	317	285	587	1031	998	1014	1076	883	721	787	470
South West											708	474	114	127	135	119	366	596	554	520	663	641	482	475	346

Source: Numbers obtained from Table 691: Quarterly Right to Buy Sales: Sales by Local Authority, England: 2006-07 Q1 to 2020-21 Q4 1234, from <https://www.gov.uk/government/statistical-data-sets/live-tables-on-social-housing-sales>.

Appendix 25. Summary of spatial factors found to be significantly related to affordability ratios in the South West, ranges are between minimum and maximum across LSOAs

Local authority	Maximum Affordability Ratio, 2021	Super Fast Broad Band	IMD	Average travel time to nearest training station		Average travel time to nearest employment centre			
				By public transport	By car	100-499 by walking	500-4999 by walking	5000+ by bike	5000+ by car
Bath and North East Somerset	35.6	78.1-100	1-10	24.4-81.5	21.8-49.6	2.0-68.8	2.9-60.0	6.3-74.7	5.8-34.5
Cotswold	34.5	76.6-99.1	4-10	41.8-172.7	42.5-66.1	3.3-98.7	4.2-86.5	6.6-119.8	6.3-43.1
Bournemouth, Christchurch, Poole	32.6	82.8-100	1-10	39.5-115.5	42.0-72.3	2.2-26.3	2.5-33.5	6.3-46.3	5.8-24.0
Cornwall	31.2	63.2-99.5	1-9		168.1-239.2	2.2-120.0	2.8-120.0	6.5-120.0	6.1-78.1
Dorset	30.0	72.1-100	1-10	69.9-171.4	39.8-117.4	2.3-109.6	3.4-117.8	6.2-120.0	6.1-47.5
Bristol, City of	26.5	64.4-100	1-10	13.0-57.4	8.8-30.6	2.0-21.2	1.4-32.0	5.7-31.8	5.6-21.6
North Somerset	25.4	63.5-100	1-10	22.3-79.8	20.7-51.5	2.4-57.0	2.1-38.3	20.5-120.0	13.0-34.7
Cheltenham	25.4	94.4-100	1-10	37.6-87.8	52.6-66.7	2.4-17.6	2.6-28.2	6.1-21.0	6.0-13.2
South Hams	24.6	53.4-99.8	3-10	113.5-167.8	139.6-178.4	2.7-81.9	4.0-116.3	19.0-120.0	11.7-58.8
Wiltshire	24.2	67.8-100	1-10	41.1-160.4	27.1-80.3	2.5-103.3	3.0-109.6	6.8-107.3	6.2-44.3
East Devon	24.2	42.4-100	3-10	96.3-180.5	91.5-124.3	3.0-75.6	2.7-90.9	16.5-120.0	11.3-47.1
Teignbridge	23.8	39.9-99.9	2-10	93.0-175.6	110.2-145.5	3.1-74.8	3.0-120.0	6.4-81.8	6.0-36.6
Sedgemoor	23.5	42.1-100	1-10	56.7-134.0	40.5-75.2	2.6-60.3	3.3-109.6	8.8-110.7	7.3-44.0
South Gloucestershire	22.8	85.9-100	2-10	0.6-106.7	5.6-34.2	2.7-78.1	2.5-49.4	6.6-63.5	5.9-25.2
Mendip	21.9	40.0-99.6	1-10	67.3-158.5	46.5-69.8	3.0-78.4	2.5-78.0	36.0-120.0	16.1-50.2
North Devon	21.7	44.3-100	1-9	131.9-166.7	109.2-153.3	2.8-120.0	4.0-119.2	6.7-106.7	6.2-46.6
Torbay	20.2	69.3-99.7	1-10	110.6-152.5	134.8-156.5	2.1-20.2	2.7-45.4	6.8-39.0	6.0-21.5
Stroud	20.1	66.1-99.7	3-10	50.6-105.4	29.2-59.1	3.0-50.8	3.9-82.6	8.4-85.7	7.3-30.5
West Devon	19.1	28.9-99.1	4-10	125.4-144.9	131.2-175.4	4.1-101.8	5.4-120.0	44.5-120.0	22.3-49.1
Somerset West and Taunton	18.5	35.4-99.9	1-10	48.8-156.5	69.9-120.4	3.2-119.3	3.1-114.9	6.7-120.0	6.1-74.0
Forest of Dean	18.4	44.1-99.7	1-8	67.1-145.6	31.8-74.9	3.4-107.7	3.7-120.0	39.1-120.0	19.9-49.8
Exeter	18.4	83.3-99.9	2-10	74.7-127.0	103.6-118.5	2.0-22.4	2.3-50.1	6.3-24.3	5.8-14.4
South Somerset	18.1	53.5-99.9	1-10	86.0-183.9	66.9-101.4	3.3-114.9	2.9-105.7	6.8-100.5	6.1-42.5
Tewkesbury	18.0	81.7-99.5	2-10	63.7-116.9	51.1-73.2	3.2-74.0	2.5-66.7	6.9-57.7	6.6-24.0
Plymouth	17.3	87.0-100	1-10	132.0-156.8	162.5-177.8	2.3-25.5	2.0-38.9	5.8-39.1	5.6-21.4
Mid Devon	15.5	34.9-99.7	3-10	68.2-174.6	86.3-128.0	5.0-101.8	2.2-113.0	33.5-118.2	18.1-46.5
Torridge	15.0	42.9-99.3	2-8	160.1-160.1	131.9-174.0	3.1-102.1	3.6-109.7	56.5-120.0	22.7-74.7
Swindon	14.7	8.9-100	1-10	30.6-87.8	44.5-60.4	2.4-39.4	2.2-60.0	6.1-30.3	5.7-15.9
Gloucester	12.3	92.4-100	1-10	54.7-98.0	44.0-56.0	1.9-20.5	2.7-37.5	6.5-23.4	6.1-14.1
Isles of Scilly (Only one LSOA)		97.5	7			120.0	44.3	120.0	120.0

Source: Broadband data obtained for output areas and average from Local authorities, from: <https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-update-spring-2019>; IMD data by LSOA (displayed as range – minimum to maximum LSOA) obtained as GIS shapefile from: <https://data->

communities.opendata.arcgis.com/datasets/5e1c399d787e48c0902e5fe4fc1ccfe3/about; Travel time to train stations as obtained from Table JTS0926a, from <https://www.gov.uk/government/statistical-data-sets/journey-time-statistics-data-tables-its>; Travel time to employment centres as extracted from Table JTS0501, from <https://www.gov.uk/government/statistical-data-sets/journey-time-statistics-data-tables-its> (all travel time data is provided by LSOA and averaged for each local authority).

Footnotes

¹ Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 1c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

² Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 1c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

³ Affordability ratios calculated from two datasets: Median house price for detached houses, semi-detached houses, terraced houses and flats or maisonettes, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheets 1b-1e, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpsdataset09>, and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

⁴ Affordability ratios calculated from three datasets: Median house price for existing properties, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 11' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpsdataset11>, Median house price for newly built properties, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 10' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpsdataset11> and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

⁵ Median house price for all house types, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesquarterlyrollingyearhpsdataset09> and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 1b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

⁶ Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 1c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

⁷ Supply calculated from Table 253: Permanent dwellings started and completed, by tenure and district, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building> and Demand calculated from: 2014-based household projections for England and local authority districts, Table 406, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>.

⁸ Supply calculated from Table 253: Permanent dwellings started and completed, by tenure and district, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building> and Demand calculated

from: 2014-based household projections for England and local authority districts, Table 406, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>, but adjusted for affordability using Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 1c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

⁹ Local area migration indicators, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/datasets/localareamigrationindicatorsunitedkingdom>.

¹⁰ Local area migration indicators, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/datasets/localareamigrationindicatorsunitedkingdom>.

¹¹ Local authority stock sold through Right to Buy, by region, 1980/1 to 2005/6: Table 670 and 2006/7 to 2020/21: Table 691, both from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-social-housing-sales>.

¹² Table 253: Permanent dwellings started and completed, by tenure and district, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>.

¹³ Ratio of median house price to median gross annual workplace-based earnings by local authority, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

¹⁴ Rural-Urban classifications are obtained from UK Gov data of Lookup tables of the Rural Urban Classification for higher level geographies, excel file 'Rural Urban Classification 2011 lookup tables for local authority areas' which divides local authorities into 6 categories: Mainly rural; Largely rural; Urban with significant rural; Urban city and town; Urban with major conurbation; and Urban with minor conurbation, of which only the first four categories are available in the local authorities of the South West, from: <https://www.gov.uk/government/statistics/2011-rural-urban-classification-lookup-tables-for-all-geographies>.

¹⁵ Affordability ratios calculated from two datasets: Median house price, by local authorities, for detached houses, semi-detached houses, terraced houses and flats or maisonettes, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheets 2b-2e, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09> and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

¹⁶ Affordability ratios calculated from two datasets: Median house price, by local authorities, for detached houses, semi-detached houses, terraced houses and flats or maisonettes, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheets 2b-2e, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09> and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

¹⁷ Affordability ratios calculated from two datasets: Median house price, by local authorities, for detached houses, semi-detached houses, terraced houses and flats or maisonettes, as obtained from 'Median house prices for administrative geographies: HPSSA dataset 9' Dataset, sheets 2b-2e, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09>

[subnationalgeographiesquarterlyrollingyearhpssadataset09](https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian) and Median workplace-based earnings, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

¹⁸ Affordability ratios calculated from three datasets: Median house price for existing properties, by local authorities, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 11' Dataset, sheet 2a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11>, Median house price for newly built properties, by local authorities, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 10' Dataset, sheet 2a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11> and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

¹⁹ Affordability ratios calculated from three datasets: Median house price for existing properties, by local authorities, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 11' Dataset, sheet 2a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11>, Median house price for newly built properties, by local authorities, as obtained from 'Median house prices for administrative geographies (existing dwellings): HPSSA dataset 10' Dataset, sheet 2a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepriceforationalandsubnationalgeographiesexistingdwellingsquarterlyrollingyearhpssadataset11> and Median Residence-based earnings, as obtained from 'House price to residence-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>.

²⁰ Ratio of median house price to median gross annual workplace-based earnings by local authority, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

²¹ Ratio of median house price to median gross annual workplace-based earnings by local authority, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheets 5a to 5c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

²² Ratio of median house price to median gross annual workplace-based earnings by local authority, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheets 6a to 6c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

²³ Supply calculated from Table 253: Permanent dwellings started and completed, by tenure and district, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building> and Demand calculated from: 2014-based household projections for England and local authority districts, Table 406, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>, but adjusted for affordability using Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

²⁴ Supply calculated from Table 253: Permanent dwellings started and completed, by tenure and district, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building> and Demand calculated

from: 2014-based household projections for England and local authority districts, Table 406, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>, but adjusted for affordability using Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

²⁵ Lichfields (2022) Standard method for local housing needs, from: <https://lichfields.uk/standard-method-for-local-housing-needs-april-2022/>.

²⁶ Completions calculated from Table 253: Permanent dwellings started and completed, by tenure and district, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building> and Annual shortfall calculated from: 2014-based household projections for England and local authority districts, Table 406, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>, but adjusted for affordability using Ratio of median house price to median gross annual workplace-based earnings by region, 1997 to 2021, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5c, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

²⁷ Local area migration indicators, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/datasets/localareamigrationindicatorsunitedkingdom>.

²⁸ Local area migration indicators, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/datasets/localareamigrationindicatorsunitedkingdom>.

²⁹ Affordability ratios calculated from two datasets: Median house price, by lower super output area, as obtained from 'Lower quartile house prices by lower layer super output area: HPSSA dataset 48' Dataset, sheet 'Data', from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/lowerquartilepricepaidbylowerlayersuperoutputareahpssadataset48> and Median workplace-based earnings, by local authorities, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

³⁰ Affordability ratios calculated from three datasets: Median house price, by middle super output area, as obtained from 'Median house prices by middle layer super output area: HPSSA dataset 2' Dataset, sheet 1a, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/hpssadataset2medianhousepricebymsoaquarterlyrollingyear>, Median house price, by lower super output area, as obtained from 'Lower quartile house prices by lower layer super output area: HPSSA dataset 48' Dataset, sheet 'Data', from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/lowerquartilepricepaidbylowerlayersuperoutputareahpssadataset48> and Median workplace-based earnings, by local authorities, as obtained from 'House price to workplace-based earnings ratio' Dataset, sheet 5b, from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.

³¹ Maps created from two datasets: Shapefile of National Parks in England, as obtained from data.gov.uk <https://www.data.gov.uk/dataset/334e1b27-e193-4ef5-b14e-696b58bb7e95/national-parks-england> and Shapefile of Areas of Outstanding Natural Beauty in England, as obtained from DEFRA Metadata Catalogue <https://deframetadata.com/geonetwork/srv/eng/catalog.search#/metadata/0c1ea47f-3c79-47f0-b0ed-094e0a136971>.

³² Map created from two datasets: 'Data for second home ownership by local authority in England and Wales', as included in the Office for National Statistics report 'House prices in tourist hotspots increasingly out of reach for young and low paid', from:

<https://www.ons.gov.uk/economy/inflationandpriceindices/articles/housepricesintouristhotspotsincreasinglyoutofreachforyoungandlowpaid/2021-09-28> and Shapefile of local authority boundaries, as obtained from 'Open Geography portalx' <https://geoportal.statistics.gov.uk/datasets/local-authority-districts-may-2021-uk-bfe/explore?location=56.235627%2C0.390827%2C5.83>.

³³ 'Data for second home ownership by local authority in England and Wales', as included in the Office for National Statistics report 'House prices in tourist hotspots increasingly out of reach for young and low paid', from: <https://www.ons.gov.uk/economy/inflationandpriceindices/articles/housepricesintouristhotspotsincreasinglyoutofreachforyoungandlowpaid/2021-09-28>.

³⁴ 'Data for second home ownership by local authority in England and Wales', as included in the Office for National Statistics report 'House prices in tourist hotspots increasingly out of reach for young and low paid', from: <https://www.ons.gov.uk/economy/inflationandpriceindices/articles/housepricesintouristhotspotsincreasinglyoutofreachforyoungandlowpaid/2021-09-28>.

³⁵ Local authority stock sold through Right to Buy, by local authority, 1980/1 to 2005/6: Table 685 and 2006/7 to 2020/21: Table 691, both from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-social-housing-sales> and Table 600: Number of households on local authorities' housing waiting lists, by district, England, from 1987, from: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-rents-lettings-and-tenancies>.