

Affordable Housing Need in Scotland Post-2021

March 2020, revised May 2020

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Foreword

Scotland needs another transformative affordable housing programme

Five years ago, our joint research called for 60,000 additional affordable homes to be delivered between 2016 and 2021 – a target designed to address our housing crisis during this Parliament. This research informed the Scottish Government’s current Affordable Housing Supply Programme, which is delivering the most affordable homes for a generation. A target of 50,000 additional affordable homes was set, including 35,000 for social rent – and the programme was on track to be delivered before the coronavirus pandemic hit.

So why did we choose to update this research? Housing need is not finite, it is continuous and long-term. Evidence showed that we were still not keeping up with housing need in Scotland. The 2015 report highlighted a range of issues that were driving demand for more affordable housing on a significant scale, including an ageing population, homelessness, and poverty and inequality. Increasing rents in the private rented sector was also a major factor. Five years later, these issues persist and are compounded by wider concerns such as the effects of Brexit and the climate emergency. Demographic and housing market trends in Scotland also point to significant housing pressures, with the potential for a worsening situation in terms of access to affordable housing in the short to medium-term. The impact of the coronavirus pandemic, although not included in the report’s modelling, will further increase the need for affordable housing.

We are calling on the next Scottish Government to set a target of delivering 53,000 affordable homes over the next Parliament (2021–2026) and to commit to a capital investment programme of £3.4 billion over five years. This will allow Scotland to reduce housing need, tackle child poverty and kick-start its post-pandemic economic recovery.

The current Affordable Housing Supply Programme has had a positive economic and social impact across Scotland. Scottish Government statistics show it has supported around 10,000–12,000 jobs in the construction and related industries in Scotland and leveraged economic output of £1.4 billion per year. In 2019, research by the Joseph Rowntree Foundation found that poverty levels are significantly lower in Scotland, compared to the rest of the UK, due to lower housing costs, particularly in the social rented sector.

Now, more than ever, Scotland needs this new programme to help rebuild our economy, create jobs and reinvigorate our communities. A home for everyone has never been more important.

We are calling on the next government to accept the recommendations in this report. This will enable Scotland’s housing associations, co-operatives and councils to build more affordable homes and to continue contributing to meeting housing need. In turn, this will ensure that affordable housing is at the heart of the government’s social justice and child poverty programmes and Scotland’s recovery from the coronavirus crisis.

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Acknowledgements

This work relies on a large number of organisations and individuals to support and provide pieces of evidence. We are grateful to the local authority representatives that spoke to us about the housing market context in their areas and their work on modelling affordable housing. We are also grateful to those of you who helped organise these interviews, such as Tony Cain (ALACHO). Our work presents an alternative assessment of housing need in Scotland to the Centre for Housing Market Analysis' HNDA tool, but we are immensely grateful to Murdo Macpherson and Lisa Bullen (Housing Directorate of the Scottish Government) who provided useful insights. John Jellema (Scottish Housing Regulator), Sylvia Ward (Scottish Housing Regulator), Claire Wood (Scottish House Condition Team), Diarmuid Lloyd (Scottish Household Survey), Conor Nangle (Scottish Household Survey) and Lee Bunce (Homelessness Statistics and Analysis) all provided signposting to relevant data sources. Thanks to Malachy Buck for assistance with mapping.

We also want to thank those from the commissioning team that have provided helpful comments throughout: Stacey Dingwall; Shona Mitchell; Sally Thomas and Lorna Wilson (SFHA); Aoife Deery; Gavin Corbett; Duncan Gray (Shelter Scotland); Callum Chomczuk and Ashley Campbell (CIH Scotland). We are grateful for your valuable support and engagement with the research team. Our thanks also to Conor Hill for initial support with the research. Any inaccuracies or omissions in the report are our own responsibility.

List of abbreviations

ALACHO - Association of Local Authority Chief Housing Officers

ARC - Annual Return on the Charter

AHSP - Affordable Housing Supply Programme

ASHE - Annual Survey of Hours and Earnings

CHMA - Centre for Housing Market Analysis

CIH - Chartered Institute of Housing

CSR - Comprehensive Spending Review

EESHS – Energy Efficiency Standard for Social Housing

EPC – Energy Performance Certificate

GROS - General register Office for Scotland

HaTAP - Homelessness and Temporary Accommodation Pressure

HEEPS – Home Energy Efficiency Programmes for Scotland

HoTOC – Homeless households in temporary accommodation and households that are both overcrowded and concealed

HMO - Housing of Multiple Occupation

HNDA - Housing Need and Demand Assessment

LHA - Local Housing Allowance

LHS - Local Housing Strategy

LLP - Limited Liability Partnerships

MMR - Mid-Market Rent

NPF – National Planning Framework

NRS - National records of Scotland (formerly GROS)

ONS - Office for National Statistics

PRS - Private Rented Sector

RHIF - Rural Housing and Island Fund

RSL - Registered Social Landlord

RTB - Right to Buy

SEHP - Scottish Empty Homes Partnership

SCORE - Scottish Continuous Recording System (data from Registered Social Landlords)

SDPA - Strategic Development and Planning Authority

SFHA - Scottish Federation of Housing Associations

SHCS - Scottish Housing Conditions Survey

SHIP - Strategic Housing Investment Plan

SHQS - Scottish Housing Quality Standard

SRS - Social Rented Sector

SWG - Subsidy Working Group

UC - Universal Credit

Summary

Introduction

This report presents the findings from research conducted in 2019 which sought to estimate the need for affordable housing in Scotland between 2021 and 2026. The research was commissioned by the Scottish Federation of Housing Associations (SFHA), Shelter Scotland and the Chartered Institute of Housing (CIH) Scotland. The study updates a previous, similar exercise conducted in 2015 by the research team.

The timing of the research and the evidence that underpins it pre-dates the first known cases of COVID-19 in Scotland. Since undertaking the research, the global pandemic has caused disruption to everyday life. The impact of the virus has been significant and extensive, but the full picture of the impact, particularly longer-term, is not precisely known at this time.

The virus has had a profound immediate impact on the role of housing in the lives of Scotland's population. For many it has become the site of work and education for the first time, or the site of furlough. For many, concerns around affordability and tenure security have been introduced or enhanced. Housing has become a place of forced containment for the majority of the population. COVID-19 has highlighted the significance of every household having access to high quality and affordable housing.

Scotland's national housing need is primarily a function of long-term trends that are well documented. This research builds on evidence derived from robust data on the existing housing stock and existing households that are in housing need as well as long term trends in household formation and migration. There will be impacts from COVID-19 on Scotland's housing need, but the use of long-term trends remains the most robust approach to identifying the affordable housing requirement over the period 2021 to 2026.

The purpose of this research is to: arrive at an estimate which can inform the scale of affordable housing need nationally; and assess the extent to which Scottish Government housing spending plans can address this need. The focus is therefore on a Scotland-wide estimate of affordable housing need which can inform housing policy and debate across the sector.

The research approach

- The research was commissioned in June 2019 with a primary focus on the additional affordable housing required for households whose needs are not met by the private housing market. The overall aim of the research is to provide SFHA, Shelter Scotland and CIH Scotland with robust evidence on total and affordable housing need in Scotland post-2021.
- The research was divided into five overlapping stages: policy review; a review of Housing Need and Demand Assessments (HNDAs); key stakeholder interviews; a Scotland-wide assessment of housing demand and need; and analysis and reporting.
- The Scotland-wide assessment involved an updated stock-flow model of the type commonly used in housing needs assessment across the UK. The methodology builds on the 2015 model, which drew on a range of models, including the CHMA Tool produced by the Scottish Government. The methods and model are presented in chapter five.
- Evidence from stakeholder interviews is drawn upon in sensitising the research to a changing local context (e.g. welfare reform considerations) and in highlighting the diversity across Scotland.

Assessing affordable housing need at the local level

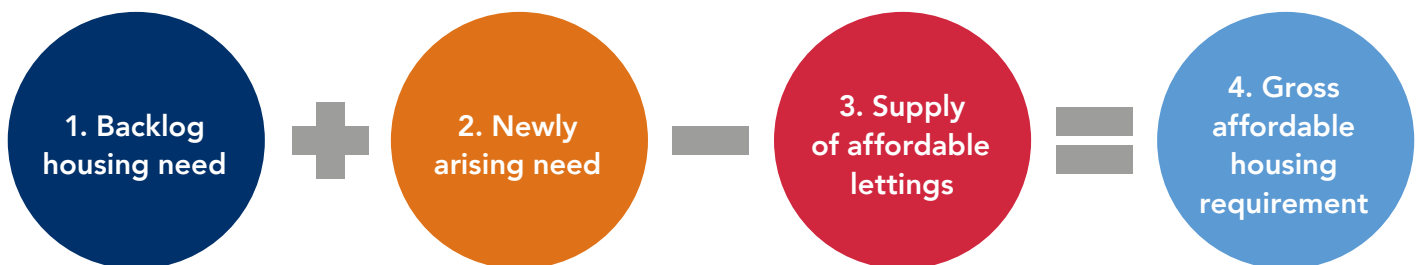
- Local authorities are required by law under the Housing (Scotland) Act 2001 to produce a Local Housing Strategy (LHS), underpinned by an assessment of housing need and demand: thus HNDA provide the evidence base for local housing strategies.
- There is less variation in the methods used to assess affordable housing at the local level than was the case in 2015. The use of the CHMA HNDA Tool is now extensive.
- The CHMA HNDA Tool is transparent; it has a published framework and provides a much clearer approach than has been used historically whilst also reducing costs. The tool allows local authorities to select some parameters to reflect the local planning context, although in practice many local authorities are not using the full array of variation that is possible.

Demographic trends and context

- Demographic and housing market trends in Scotland point to significant housing pressures, with the potential for a worsening situation in terms of access to affordable housing in the short to medium-term.
- Household projections show that the number of households in Scotland is growing at a steady rate, as is the Scottish population, underscoring the need for sustained housing delivery over the longer-term.
- House prices show an upward trend since their previous peak in 2007 and look set to reach that peak again in the near future.
- Market rents have increased steadily and consistently year-on-year, which is perhaps unsurprising given that the social rented sector has contracted and many households are struggling to access home-ownership.
- House building levels are below their peak in 2007. Social housing completions fell by 44% from 2010 to 2014 to just 3,217, before increasing to 5,103 in 2018 and 2,174 in the first quarter of 2019.
- The social rented sector stock has been depleted through local demolitions and more broadly through the Right to Buy scheme.
- Though the number of households assessed as homeless has fallen since a peak in 2010, homelessness is still a pressing issue in many local authorities.

Assessment of affordable housing need

- A statistical model of affordable housing need was created in 2015, this model has been revised and updated to reflect changes in data availability in 2019. It attempts to balance the need to create a model that is robust and evidence-led at the level of the country as a whole, with the need to be sensitive to an array of potential local issues that will inflect the overall assessment of need.
- Our basic principle is that a national assessment of housing need cannot simply be the sum of local housing need assessments but must proceed using a set of common assumptions.
- A main version of the model is detailed in chapter five – this is termed the ‘Core Model’ as it is built around ‘core’ assumptions built into the CHMA Tool. A set of four scenarios are presented which provide bottom and top-end assessments of affordable housing need by varying assumptions related to household formation and affordability.
- The assessment of affordable housing need employs a stock-flow model of the type commonly used in housing needs assessment in the UK. Put simply, the model architecture consists of:



- Predicated on the 2016 National Records of Scotland Principal Household Projections there is an annual requirement of 15,300 new dwellings per annum in Scotland.
- The core model results are an estimate of the likely affordable housing need based on frequently used household and house price change assumptions. **The model estimates an annual affordable housing requirement of 10,600 dwellings per annum over the period 2021-2026.**
- Whilst we have attempted to model the most likely requirement, future scenarios could result in higher or lower affordable housing needs. The alternative modelling scenarios give a range of annual affordable housing requirement of between 7,300 and 11,900.
- It is clear from the model that there are divergent affordable housing needs in different geographic contexts and policy and funding is required for both targeted and local interpretations of the type of housing required.

Policy and funding implications

- The increase in Scotland's funding for affordable housing supply between 2015 and 2020 is having an impact in reducing housing need. However, with 10,600 dwellings required per annum to deal with the backlog and newly arising need between 2021 and 2026, continuation at this level of subsidy in 'real' terms is required.
- A mixture of affordable housing products will be required to meet this housing need. This mix will need to be tailored to local geographies and housing needs. As such the overall capital budget will need to reflect this mixed type of subsidy by tenure type, size and geography. The increases in the Grant Subsidy Benchmarks are welcome but will need to be updated regularly to reflect changing costs.
- We estimate that the Affordable Housing Supply Programme will need in the region of £3.4 billion to finance the necessary new stock that is required between 2021 and 2026. This is in addition to any necessary funding to maintain the existing stock.
- The changing demographic profile in Scotland will require increased subsidies directed towards older people's housing. This will need to support both new housing delivery and enable households to stay in their existing dwellings through adaptations, where this is suitable.
- The delivery of housing has increased in Scotland in the last couple of years and it is widely recognised that there is an ongoing need to support a skilled construction workforce. Brexit, as well as other issues, may result in loss of skilled labour – the Scottish Government will need to monitor the construction workforce and continue to work with developers to ensure rising costs do not inhibit housing delivery.
- The Scottish Government's commitments on climate change are recognised within affordable housing supply. Assessments of housing need and discussions about the locations of supply should consider the impact that climate change might have on new supply over the course of their expected lifetime. To meet the Government's targets on climate change it will need to switch subsidies for all new housing to be at a level that adequately funds greener heating and efficiency (whilst recognising that different development contexts will require different solutions).
- The progress that has been made since 2015 in affordable housing supply needs to continue between 2021 and 2026 to meet the needs of existing households living in inadequate accommodation and to support household growth. While progress has been positive, if the Scottish Government is to genuinely meet affordable housing need then this is no time for complacency. Rather, recent progress represents an opportunity to further accelerate affordable housing provision in addressing the still significant need for affordable housing.

1. Introduction

This report presents the findings from research conducted in 2019 which sought to estimate the need for affordable housing across Scotland as a whole. The research was commissioned by the Scottish Federation of Housing Associations (SFHA), Shelter Scotland and the Chartered Institute of Housing (CIH) Scotland. The report builds on and updates a previous national assessment of housing need in Scotland conducted by the research team in 2015.

Affordable housing is at the heart of Scotland's goals. The Scottish Government's National Performance Framework's National Outcomes are clearly aligned with the need to provide the right housing for all households at a cost that they can afford. Without sufficient high-quality housing for each part of Scotland then the nation will struggle to reduce inequality, support communities that are inclusive, empowered, resilient and safe (Scottish Government, 2019j), as well as the attendant difficulties that arise for households without appropriate housing. As such, providing a clear assessment of housing need is vital to meeting these outcomes. The Scottish Government has opened up the avenue for discussion about Scotland's housing future through the Housing to 2040 consultation. The vision setting document for Housing to 2040 clearly identifies challenges relating to the ageing population, changing household structures, climate change, homelessness, child poverty and wider welfare reforms, which will all impact on housing (Scottish Government, 2019g).

The report in 2015 provided a clear and substantial evidence base for consideration of the housing policy and funding required to support those in housing need in Scotland. It argued that 12,000 new affordable dwellings per annum are required in Scotland between 2016 and 2021. However, the report also argued that what is provided is as important as how much, with an emphasis on requiring detailed analysis of the location, size and type of affordable housing necessary. The 2015 research revealed a much higher proportion of affordable housing within the overall housing requirement was required than was previously accepted. This research is situated in a longer history of national housing need evidence, not least Bramley et al.'s research for the Scottish Government in 2006, but also updated more recently. In 2018 Glen Bramley undertook analysis of housing supply requirements across Great Britain and found that Scotland's annual below market price/rent house building requirement was 10,000 dwellings (social rent, shared ownership or intermediate rent).

Since 2015 there has been an enhanced commitment from the Scottish Government to support affordable house building. However, in April 2020 the Scottish Government reported that it will not be able to meet its affordable housing supply target (Scottish Housing News, 2020), in part due to COVID-19, although there were concerns that even without COVID-19 the target would have been difficult to reach (CIH, 2020). There has also been an array of new initiatives regarding regeneration, mid-market rent and the operation of the PRS. Changes to welfare and the wider structure of the economy have also had an impact upon housing provision and need. We summarise these changes in chapter three, which constitutes a significant baseline for the policy and funding recommendations arising in chapter seven.

This research was completed in February 2020, prior to the arrival of COVID-19 in Scotland. As such, we have not included the impact of the virus in the modelling or conclusions. The virus has impacted on expectations of housing, short term mortality rates for some groups of the population and the economy – three issues that impact on population change. However, the impact of these changes on housing need over a five-year period is likely to be less sizeable than the short-term trends suggest and the use of long-term trends remains the most appropriate tool to understand housing need for the period 2021 to 2026.

We can consider the impact of COVID-19 as significant in at least three ways. First, isolation regulation, as a response to COVID-19, has had an impact on how people use their homes and has highlighted the necessity of high quality, affordable housing for Scotland's population. Second, it is clear that people with existing health concerns are particularly vulnerable to the virus. How this will impact on overall household structures is less clear, however. Third, the negative impact of the virus on the economy has already begun to impact many households' finances and simultaneously the capacity of some organisations (such as charities) to support those households. The economic impact of COVID-19 may well create the biggest change to housing need, altering migration patterns, housing markets and the ability of households to afford market rents and prices. To the extent that these vary regionally or between countries, the migration impacts may be amplified but it is too early to assess that yet.

The uncertainty surrounding the impact of COVID-19 on social life, the population and the economy means that previous short-term household and economic projections are likely to be less useful as a predictor of future patterns. However, longer term trends will be affected to a lesser extent than short term trends, and these form the core evidence base of this research. We present here the results of the analysis of housing need created in February 2020. This analysis is based on the most up to date data available and reflects the longer-term trends of households that are currently in housing need as well as those that will form and will require adequate housing.

The focus of this report is on a Scotland-wide estimate of affordable housing need which can inform housing policy and debate across the sector. In this sense the findings presented complement the local evidence base derived through the HNDA process, rather than challenge it. Arriving at a national estimate of affordable housing need is more complex than simply summing together the housing need requirements presented in local HNDA documents.

A Scotland-wide estimate of affordable housing need therefore necessitates the development of an alternative, consistent approach which builds on local evidence and the model developed by the CHMA. However, it in no way undermines or replaces the evidence base provided by the local HNDA exercise, many of which will provide a nuanced understanding of localised issues that present a particular geography of need. In contrast, the purpose of this research is to: arrive at an estimate which can inform the reader of the scale of affordable housing need nationally; and assess the extent to which Scottish Government housing spending plans can address this need. The estimate also provides an indicator from which progress towards the delivery of affordable housing can be monitored and assessed.

¹ <http://blog.shelter.org.uk/2015/08/what-is-affordable-housing/> - see the Shelter blog for a discussion of the various points of contention in defining affordable housing.

As with all assessments of housing need, it remains important to distinguish between social and affordable housing at the outset. This is not as straightforward as it may first seem as 'what makes a home "affordable" has become a serious point of contention'.¹ Despite the contested nature of the term there is the need for a distinction which captures the difference in terms of policy and tenure. For the purposes of this report a tenure-based definition is used rather than a household one, as what is affordable to one household may not be affordable to another in a similar position in the housing market. In what follows:

- Social housing refers to secure, relatively low rent housing, prioritised by need and provided by local authorities and Registered Social Landlords (RSLs).
- Affordable housing is used to denote a much broader category of housing tenures that includes social housing, but also a plethora of low-cost home-ownership and mid-market rent schemes.
- Mid-market rent (MMR) describes housing that is typically between the cost of market rent and social rents and is designed for low to moderate income households, i.e. often households that would not qualify for social housing but cannot afford market rent or owner occupation.
- Low-cost home ownership describes several schemes supported by the Scottish Government designed to enable lower income households, and often first-time buyers, to purchase a dwelling or a share in it.

These definitions should be borne in mind throughout the rest of the report.

The remainder of the report is divided into six further chapters. **Chapter two** details the research approach adopted in this assessment of housing need. **Chapter three** outlines the housing policy changes that have taken place in Scotland since the last national assessment in 2015. **Chapter four** highlights the context for assessing affordable housing need at the local level with a focus on the HNDA process. **Chapter five** provides an overview of the demographic trends and context drawing upon key socio-economic indicators that feed into the Scotland-wide assessment. **Chapter six** presents the main findings from the modelling exercise and provides estimates for affordable housing need in Scotland under a range of different scenarios. **Chapter seven** discusses the key policy and funding implications of the Scotland-wide assessment presented in chapter six with reference to the broader policy and fiscal landscape.

2. The research approach

The research was commissioned in June 2019 with a primary focus on: the additional affordable housing required for households whose needs are not met by the private housing market.

The overall aim of the research was to provide SFHA, Shelter Scotland and CIH Scotland with robust evidence on total and affordable housing need in Scotland after 2021 from which they can:

1. Analyse the case for increased funding and prioritisation for affordable housing, and set out a vision for the geography and types of housing need in Scotland post-2021
2. Use this evidence to make representations to the Scottish Government and Parliament
3. Assess the extent to which current housing spending decisions and plans by the Scottish Government will address the total and affordable housing need.

The objectives identified in the initial request for this research were:

- a. To provide an update to the 2015 research with an assessment of total and affordable housing need, based on the consistent use of data and methods and based on the researchers' own insights as to best practice;
- b. To establish what types and sizes of homes need to be developed, taking into account projections of changing household demographics, an ageing population, and increasing self-directed care at home;
- c. To establish where it would be best to build the homes that are needed;
- d. To draw out policy and funding implications for housing supply for the five-year period 2021 – 2026.

Objectives a and d were explored in the research and are covered in this report. However, objectives b and c require different research methods than those utilised in this project and require a more fine-grained spatial analysis. We agreed with the report commissioners that this was beyond the remit of this research. A national level analysis is appropriate to identify an assessment of total and affordable housing need to inform top-level funding and policy implications. National policy will then set the context for meeting objectives b and c through localised assessments.

The research was divided into five overlapping stages:

Stage 1: Policy Review – This sought to bring up-to-date a review of housing policy focussing on the provision of affordable housing across Scotland. The findings from this element are discussed explicitly in chapter three but are also drawn upon throughout the report where relevant. In chapter six we discuss changes to these policies and make recommendations for national government.

Stage 2: Review of HNDAs – Stage two involved the collation of the latest HNDA documents for all 32 Scottish local planning authorities, or Strategic Development and Planning Authorities (SDPAs). There are four SDPAs in Scotland which represent an amalgamation of authorities (i.e. Aberdeen City and Shire; Glasgow and the Clyde Valley; Edinburgh and South East Scotland; and Dundee, Perth, Angus and North Fife). Since the creation of the CHMA HNDA Tool there has been an increasing conformity to the practices and methods within that model. As such, this iteration of the research included a more focussed analysis of the published HNDAs to compare variations in practice and published limitations.

Stage 3: Key stakeholder interviews – Key stakeholders were consulted through a series of interviews conducted with housing officers and analysts. Some interviewees were responsible for assessing housing need within a local authority level, whilst others were involved in multiple assessments in different locations across Scotland. In total, 12 interviews were conducted from June to December 2019. Interviews focused on the local HNDA process and perspectives on housing market change since the latest HNDA exercise was conducted. Whilst authorities are routinely using the HNDA tool, there remains scope and demand for localised inputs and interpretations. Local insights are therefore invaluable to understand how HNDAs are operationalised, how they are interpreted and how they inform local policy.

Stage 4: Scotland-wide assessment of housing demand and need – the stock-flow model used in the 2015 assessment was revised in light of changes to data availability. The family typology of local authorities was reviewed in relation to the latest statistics on housing provision and demographic trends. The model is more technically challenging than the current simple form of housing need assessment undertaken (using Ministry of Housing, Communities and Local Government guidelines) by many local authorities elsewhere in the UK. It represents a more comprehensive account of population and household changes than in many of these models, but mirrors more closely the CHMA Tool produced by the Scottish Government. There are however several key distinctions between the CHMA Tool and this model. Details of the model and a full explanation of the methodological assumptions underpinning it are presented in chapter six.

Stage 5: Analysis and Reporting – findings from stage four were then 'sense-tested' against four different scenarios based on varying levels of migration/household formation and affordability into the future. More optimistic and pessimistic estimates of affordable housing need are therefore presented alongside the core model.

3. Housing policy developments in Scotland since 2015

Introduction: Scotland's current housing context

This chapter provides an overview of the housing policy context within broader welfare and social policy in Scotland. It then highlights significant policy changes concerning affordable housing that have occurred in Scotland since 2015 when the previous version of the 'Affordable Housing Need in Scotland' report was published (Powell et al, 2015). The previous report estimated a requirement in Scotland to supply approximately 12,000 new affordable homes each year for five years, amounting to 60,000 new affordable homes in total. Since then, the Scottish Government has pledged to deliver 50,000 affordable homes, 35,000 of which are for social rent, in a 5-year period from 2016-2021 (Scottish Government, 2016). This is 10,000 fewer than was recommended although a substantial increase in comparison to the 30,000 homes that were pledged over the five-year period leading up to 2016 (ALACHO et al, 2013). Evidence indicates that the Scottish Government's targets are within reach, although there may be a shortfall. A report for Shelter Scotland, SFHA and the Equality and Human Rights Commission in Scotland estimated that between 45,387 and 49,773 are likely to be delivered within the five-year timeframe, 34,850 of which will be for social rent (Young and Donohoe, 2018). The same report also stated that a programme of this scale could lead to a net rise in social housing of up to 25,000 homes once demolitions, conversions and other attrition is accounted for.

Investment in affordable housing through various commitments and mechanisms (which are detailed later in the chapter) is set within the context of substantial demographic and tenure change. Scotland's net population has been consistently growing since 2000 (National Records of Scotland, 2019a), the population is ageing due to people living longer and the number of births dropping, and more people are living alone or in smaller households (National Records of Scotland, 2019b). For housing, these changes create a pressure for supply to keep up with growing demand, and an increasing requirement to build houses that are suitable for meeting the needs of older people. With regard to tenure change, although Scotland has invested significantly more in the preservation and new supply of social housing in comparison to the other UK nations, social housing, which was the second largest tenure behind home-ownership up until a decade ago, now represents the third largest tenure behind home-ownership and the private rental sector (PRS) (Serin, Kintrea and Gibb, 2018).

This has led to problems for households, especially those on low incomes and young people looking to move out of the family home, who are unable to access the social rented sector or find affordable, longterm alternatives (Hoolachan et al, 2017). The 2008 recession resulted in tighter mortgage lending and a huge increase in the deposits required for buying a home, making it inaccessible to many. One report stated that the average UK deposit in 2007 was £12,556 which had more than doubled by 2017 to £26,224 (Savills, 2017). Unable to buy a property or to access the small social rented sector, many households on low incomes and young people looking to move out of the family home have had no alternative but to move into the PRS. The expense and insecurity of some accommodation in this tenure has had negative impacts on tenants' welfare and wellbeing, pushing some into poverty or even homelessness. Indeed, the largest proportion of those subjected to formal homelessness assessments in 2017-18, who had been living in their 'own property' (as opposed to living with a parent/friend or rough sleeping) prior to assessment were living in the PRS (Fitzpatrick et al, 2019).

Affordability issues, especially for those living in the PRS, have been exacerbated by welfare cuts and changes the UK has undergone since 2010. Cuts to the Local Housing Allowance (LHA) have meant a growing gap between actual PRS rent levels and the amount of rent covered by LHA (Chartered Institute of Housing, 2018). The rolling out of Universal Credit has incurred delays and the long waiting periods that claimants have endured have led to a rise in the use of food banks (The Trussell Trust, 2018). Research by Webster (2018) has indicated the greater enforcement of benefit sanctions for Universal Credit claimants compared to those who are still receiving the 'legacy' benefits such as Job Seekers Allowance. Furthermore, the benefit cap for out-of-work claimants was lowered in November 2016 which has significantly increased the number of households affected. Despite Scotland's use of discretionary housing payments (DHPs) to try to mitigate the effects of the cap on Housing Benefit, the scale of losses is such that DHPs cannot fully diminish its impact (Fitzpatrick et al, 2019). Two new legislative acts in Scotland could go some way to alleviating some of these welfare and affordability issues. The Social Security (Scotland) Act 2018 gives the Scottish Government powers to vary the housing element of Universal Credit which could lessen some of the difficulties that benefit claimants have faced in meeting housing costs, and the Private Tenancies (Scotland) Act 2016 provides local authorities with powers to implement 'rent pressure zones' to restrict rental increases in certain areas, however these powers have yet to be utilised.

This overarching picture of demographic, tenure and welfare changes mean that investment in social housing, as well as other forms of affordable housing, is crucial for the wellbeing of Scotland's population. The remainder of this chapter details Scotland's approach to increasing the supply of affordable housing and, particularly, policy changes that have occurred since 2015; it is structured as follows. First, an overview of the More Homes Scotland framework will be presented. This framework encompasses various programmes and funds relating to four priorities: (1) more investment for more housing; (2) supporting infrastructure, land and housing delivery; (3) a more effective planning system; and (4) providing expert advice. Its wide remit means that the More Homes Scotland framework relates to different tenures, but the features discussed in this report relate only to affordable housing. Thus, the section that follows focuses on the Affordable Housing Supply Programme, which falls under the More Homes Scotland approach, and details the different initiatives and funds available to drive up the supply of affordable housing in Scotland. Changes to housing subsidies are then outlined, followed by an overview of efforts to preserve and improve the current social housing stock. Construction and planning changes and implications are then highlighted. The chapter concludes with a summary comparing the changes since 2015 with the recommendations made by Powell et al (2015) in the previous report.

More Homes Scotland

In 2016, the Scottish Government published the 'More Homes Scotland' framework which drew upon the Joint Housing Delivery Plan for Scotland that was launched the previous year (Scottish Government, 2015). The More Homes Scotland framework (Scottish Government, 2016) specified several goals to increase housing supply across all sectors. These included:

- The delivery of 50,000 affordable homes by 2021 with at least £3 billion allocated for this. Significantly, 35,000 of these 50,000 new homes were earmarked for social rent
- Increased subsidy levels to facilitate this affordable home building including the introduction of a Rural Housing Fund
- Piloting a Private Rental Sector (PRS) Rental Guarantee Scheme to invest in the building of high-quality private rental properties
- An investment of £160 million in 2016-17 to support 5,000 households to buy their own home through the Open Market Shared Equity Scheme and new Help to Buy (Scotland) scheme
- A commitment to review the planning system and overcome blockages to housing development

The Scottish Government has committed to incremental increases each year from 2016 to 2021 in funding to be shared among all councils to provide certainty and help to councils and housing associations in meeting the Government's supply goals. Since the More Homes Scotland report in 2016, two progress updates have been published (Scottish Government, 2017a; 2018a). The first of these detailed that in 2016-17, local authorities across Scotland were allocated £406 million to build new affordable homes. Of this, £25 million was invested in the new Rural Housing Fund, and a subsequent Islands Housing Fund was introduced with £5 million allocated; both funds are targeted at increasing affordable housing in rural communities. Mid-market rent (MMR) proposals were being considered and the new PRS Rental Guarantee Scheme market testing was underway. £80 million was invested in the Open Market Shared Equity Scheme and another £80 million in the Help to Buy (Scotland) scheme. Furthermore, support was given to the Scottish Empty Homes Partnership with Shelter Scotland to bring empty homes back into use (Scottish Government, 2017a). The second update report stated that in 2017-18, the Scottish Government allocated £756 million to the Affordable Housing Supply Programme (AHSP). They continued developing proposals for MMR and estimated that these proposals would result in 1,000 new MMR homes. Finally, they announced work that was about to begin on projects to strengthen the housing sector's approach to off-site construction, and that work had been done with Scottish Water to resolve housing delivery concerns that had been raised by developers (Scottish Government, 2018a). The recent spending commitment by the Scottish Government is to increase investment in the AHSP to £826 million in 2019-20 (Scottish Government, 2018b) and in February 2020 announced a further £300 million for 2021-22 to "ensure affordable homes continue to be delivered beyond the current parliamentary term" (Scottish Government, 2020).

Affordable Housing Supply Programme (AHSP)

Many of the funds and initiatives outlined in the More Homes Scotland reports fall under the remit of the Affordable Housing Supply Programme which aims to provide a mix of social and other affordable housing through a variety of grant, loan and equity funding mechanisms. Social housing encompasses housing provided by councils and registered social landlords (RSLs), while 'other affordable housing' includes MMR and low-cost home-ownership opportunities. Most funding mechanisms offered through the AHSP have remained unchanged since 2015, although there are some significant new additions. The loans, grants and initiatives that remain unchanged include:

Grants to social landlords:

- Subsidies are given to local authorities and housing associations to enable them to deliver social housing and fulfil the Scottish Government's promise of building 35,000 new homes for social rent in 2016-2021.

Low-cost initiatives for first-time buyers (LIFT):

- **Shared equity:** Two versions of the Shared Equity scheme currently exist. The 'New Supply Shared Equity' scheme involves providing social landlords with grants to build or buy properties for sale. Purchasers fund 60-80% of the property price and the Scottish Government assumes the remaining stake. The 'Open Market Shared Equity' scheme operates a similar model but purchasers buy a property from the open market and pay 60-90% of the cost.
- **Shared ownership:** Purchasers fund 25%, 50% or 75% of the cost of a property from a RSL while also paying rent (in the form of an occupancy payment). Purchasers are responsible for all repair and maintenance costs but can purchase further stakes in the property up to 100% of the cost, at which point they become the full homeowner.

Partnership support for regeneration:

- Formerly known as Gro Grants, these are grants given to private developers to build houses for sale. They are used to build private housing in areas with little/no private housing or where there are housing shortages. They assist developers in bridging the gap between the cost of development and the price that the house is sold for upon completion of the build.

Other funds/initiatives:

- **Homeowner's Support Fund:** This fund provides support to homeowners who are struggling to pay their mortgage. Two options currently exist: (1) 'Mortgage to Rent' involves selling a property to a social landlord and continuing to live in the property while paying rent; (2) 'Mortgage to Shared Equity' involves retaining a stake in the property and selling the remaining stake to the Scottish Government.
- **Empty Homes Loan Fund:** Loans are given to owners of empty properties to assist them with the costs of bringing the properties back into use.
- **Grants for Mid-Market Rent (MMR):** These are given to (predominantly) RSL subsidiaries to provide MMR properties. MMR is aimed at people on low to moderate incomes who would struggle to become homeowners or live in the PRS but who can afford to pay a higher rent level than social rents. MMR, therefore, falls in the middle of social and private rent levels.
- **National Housing Trust:** This model is a collaboration between the public and private sectors to build affordable housing. Limited Liability Partnerships (LLPs) encompassing the council, developer and Scottish Futures Trust are set up to oversee progress. Once building is complete, the LLP purchases the property and rents it to a household at intermediate rent for a period of five to ten years. After this period has ended, the property is sold on the open market.
- **First Home Fund:** In December 2019 the Government launched a scheme for first time buyers to support the purchase of a property with up to £25,000 provided as a shared equity stake. The scheme is open to up to 6,000 first-time buyers from anywhere in Scotland to purchase either a new build or existing property.

New initiatives

In addition to the continuation of these funds and schemes, since 2015 several new initiatives have been introduced as part of the AHSP. These include:

Local Affordable Rented (LAR) Housing Trust: Launched in October 2015, the LAR Housing Trust is an independent charity that supplements the work of the National Housing Trust and aims to build around 1,000 new homes available for MMR in villages, towns and cities across Scotland. LAR Housing Trust received initial funding from the Scottish Government in 2015 from a 25-year loan of £55 million. It subsequently received an additional £65 million from private funding with the Bank of Scotland Commercial Real Estate through its partnership with Scottish Widows. In its 2018 annual review, the charity reported that, since its launch, they had 249 homes occupied with tenants and another 351 homes under construction or in the planning stages. In comparing MMR with the PRS, they estimated that tenants would save an average of £1,270 per year in rent (LAR Housing Trust, 2018).

Town Centre Housing Fund and Town Centre Empty Homes Fund: The 2013 Town Centre Action Plan (Scottish Government, 2013) announced an investment of £2 million into a new Town Centre Housing Fund to bring empty town centre properties (including empty commercial properties) back into use for affordable housing. Six 'demonstration projects' were funded via this resource amounting to 75 new homes being supplied. In 2015 the Town Centre Empty Homes Fund was announced with a further ten projects receiving a total of £4 million of funding as a combination of grants and loans. It was projected that these would result in 87 new housing units (Scottish Empty Homes Partnership, 2017). This fund was time limited and, at the time of writing, has been closed.

Rural Housing and Island Fund (RHIF): In 2016, the Scottish Government opened a new Rural Housing and Island Fund (RHIF) which was a three-year rolling fund, but subsequently extended to 2021, for the provision of new affordable housing or the refurbishment of existing empty properties. There is also a smaller sub fund available for undertaking feasibility studies to inform potential building projects. The Rural Housing Fund was launched early in 2016 and was followed later that year by further investment specifically for Scotland's island communities. The RHIF is comprised of up to 90% grant funding and the remainder is taken as a loan. As of July 2019, 13 projects benefitting from this fund had been completed generating 45 new homes. A further 19 projects have been approved or have commenced (Scottish Government, 2019a).

Although it sits outside the AHSP, the **Help to Buy (Scotland) Scheme** was launched in 2013 and continues to be popular. This is a shared equity scheme to help people to buy a new-build home without the need for a large deposit. Help to Buy (Scotland) was launched to help boost the house-building industry in the aftermath of the 2008 recession which resulted in mortgage lenders requiring large deposits which many people (especially first-time buyers) were struggling to obtain. From 2016 to 2019, 7,030 properties had been sold through this scheme with evidence that the percentage of first-time buyers benefitting from the scheme increased over this same period (Scottish Government, 2019b). The scheme is only supported by specific property developers and mortgage lenders. In 2018, the threshold for the scheme was reduced from properties up to the value of £250,000 down to £200,000.

Subsidising Affordable Housing

The previous affordable homes report outlined that subsidy levels for affordable housing had been too low and inflexible, before they were increased in 2013 (Powell et al, 2015). In 2015, a short-life Subsidy Working Group (SWG)², was convened to assess how the momentum of the AHSP could be sustained.

More specifically, the SWG was tasked with delivering on one of the action points of the Joint Housing Delivery Plan for Scotland (Scottish Government, 2015) which was 'to provide advice to Ministers on whether adjustments to the current subsidy framework and benchmarks are needed to account for inflation and other financial pressures' (p.11). The outcome of the SWG's work was to recommend that, from April 2016, grant subsidy benchmarks were increased from £9,000 to £14,000 per unit (Subsidy Working Group, 2015). Table 3.1 provides further details of the SWG's recommendations. The higher rates allocated to rural areas reflects the higher development costs involved in building in these areas.

² The Subsidy Working Group was comprised of members from CIH Scotland, SFHA, the Glasgow and West of Scotland Forum, ALACHO, the Convention of Scottish Local Authorities and the Scottish Government.

Table 3.1: Proposed social housing subsidy benchmarks by the SWG

	West Highland, Island Authorities and remote and/or rural Argyll	Other rural	City and urban
RSL social rent – greener*	£84,000 (3 person equivalent benchmark)	£74,000 (3 person equivalent benchmark)	£72,000 (3 person equivalent benchmark)
RSL social rent – other	£82,000 (3 person equivalent benchmark)	£72,000 (3 person equivalent benchmark)	£70,000 (3 person equivalent benchmark)
RSL mid-market rent – greener	£46,000 (3 person equivalent benchmark)		
RSL mid-market rent – other	£44,000 (3 person equivalent benchmark)		
Council social rent – greener	£59,000 (flat rate benchmark for council projects)		
Council social rent – other	£57,000 (flat rate benchmark for council projects)		

*To qualify for the higher ‘greener’ subsidy, new homes must include energy for space for heating, as detailed within Section 7 of the 2011 Building Regulation.

Source: Subsidy Working Group (2015: p.7)

Although these recommendations came ahead of the 2015 spending review in which it was announced that, in real terms, the Scottish budget was expected to fall by 3.9% over the period, compared to a fall of 2.2% in the UK as a whole (Scottish Parliament Information Centre, 2015), the Scottish Government agreed to the recommendations made by the SWG in 2016 leading to an increased investment of £14,000 per unit until 2019-20. As of April 2019, the subsidy benchmarks outlined in Table 3.1 have not changed (Scottish Government, 2019c). In addition to increased subsidy benchmarks, the SWG made a further recommendation, which was subsequently agreed by Scottish Government, for greater flexibility to allow some social rent and MMR projects to be approved above and below the benchmarks to account for differences in development costs, complexity of the building conditions and condition of the land in different sites (Subsidy Working Group, 2015).

Although the increase in subsidy benchmarks has been welcomed by the sector, the expectation that affordable housing providers negotiate funding from other sources, such as private and charitable investors, has remained. The National Housing Trust and LAR Housing Trust represent two such innovative schemes used to provide MMR properties. A further example includes Places for People who have set up a real estate fund, with funds raised from Scottish Government loans and equity investment from private partner companies, to deliver MMR homes. Furthermore, in partnership with Allia – a not-for-profit organisation – the Scottish Government set up a Charitable Bond programme in 2014 to raise funds for building affordable and social housing. This funding mechanism provides development finance for new affordable housing in the form of a 5-year loan provided by philanthropic investors as well as instant capital funds in the form of charitable donations (see Hedley and Joy, 2011 for details about how Allia’s charitable bonds operate). In 2017-18, these charitable donations were used as housing association grant for the provision of new social housing. In some instances, the donations formed the sole contribution from the Scottish Government towards the development of social housing but in other cases they were donated in addition to funding through the AHSP.

Preserving and improving current housing stock

While AHSP initiatives are aimed at helping households to access affordable housing and address problems they may face in paying their mortgages or rents, further efforts have been made to preserve and improve current housing stock for affordability purposes. The net rise in social housing supply projected by Young and Donohoe (2018) is aided by the abolition of the Right to Buy (RTB) scheme which was announced in the Housing (Scotland) Act 2014, with a deadline of 31st July 2016. RTB – a policy introduced by the Thatcher Government in 1980 which enabled social housing tenants to buy their homes at discounted rates – led to the sale of half a million socially rented homes in Scotland during its lifetime (Scottish Government, 2018c). The scheme had already slowed down prior to its abolition due to restrictions introduced in the Housing (Scotland) Acts of 2001 and 2010, although there was a spike in sales in 2016 ahead of the deadline (Serin, Kintrea and Gibbs, 2018).

Energy efficiency efforts are also significant given that the most recent statistics indicate 24.9% of Scottish households were living in fuel poverty in 2017 (Scottish Government, 2018d), including a significant proportion of housing association tenants undergoing stress because of fuel poverty (SFHA, 2019). Making homes more energy efficient can reduce a household's fuel bill, further helping them to meet their mortgage or rent payments as well as other living costs. In 2018, the Scottish Government published its Energy Efficient Scotland 'route map' (Scottish Government, 2018e) which stated the vision that 'By 2040 our homes and buildings are warmer, greener and more efficient' (p.19). Homeowner consultation on energy efficiency standards was open until March 2020, and updates to both the Energy Efficient Scotland route map and Scotland's Climate Action Plan were due to published in April 2020 (Scottish Government, 2019f). The Scottish Government confirmed a delay to the Action Plan on 1 April 2020 however, due to COVID-19³. In relation to homes, the route map was structured around five goals for improving energy efficiency in homes across the country. These goals relate to Energy Performance Certificate (EPC) ratings which range from A (the most energy efficient) to G (the least energy efficient).

The five goals are:

1. **By 2040 all Scottish homes to achieve an EPC C;**
2. **Maximise the number of social rented homes achieving EPC B by 2032;**
3. **Private rented homes to achieve EPC E by 2022, EPC D by 2025 and EPC C by;**
4. **All owner-occupiers to achieve EPC C by 2040;**
5. **All homes with households in fuel poverty to reach EPC C by 2030 and EPC B by 2040.**

³ <https://www.gov.scot/news/climate-change-plan-update/>

While each of these goals is caveated with 'where technically feasible and cost-effective', they indicate an ambition not only to address climate change but to help households to meet the financial costs of energy use and to eradicate fuel poverty. Several funding mechanisms have been made available to achieve these goals which include:

- **Low Carbon Infrastructure Transition Programme (LCITP):** This is to fund projects which utilise technologies to lower the carbon emissions of homes, including moves towards renewable heat sources.
- **The District Heating Loan Fund:** This is used to address financial and technical barriers to district heating projects.
- **The Home Energy Scotland Loan Scheme:** Provides interest-free loans up to the value of £35,000 for energy efficiency measures and renewable technologies via the Energy Savings Trust.
- **Home Energy Efficiency Programmes (HEEPS):** Grant funding is available through HEEPS to cover the cost of installing energy efficiency measures in fuel poor households. Between 2013 and 2016, over £600 million was invested by the Scottish Government, social landlords and homeowners to improve the energy efficiency of homes, resulting in almost 100,000 households living in homes that are warmer and cheaper than we were previously. Although the Scottish Government has committed to continuing to invest in this fund, its future beyond 2020 is uncertain due to limited devolved powers in this area and a reliance on the UK Government to commit further funding, which it is yet to do.

In addition to the abolition of RTB and energy efficiency commitments, over the past decade, efforts have been made to make more efficient use of current housing stock by bringing empty private sector homes back into use. In 2010-11, the Scottish Empty Homes Partnership (SEHP) between the Scottish Government and Shelter Scotland was introduced to offer advice to homeowners, support councils and other bodies, and develop policy and practice ideas to bring empty homes back into use. In this time, 3,216 empty homes have been brought back into use including the latest figure of 742 in 2017-18, and several local authorities have employed an empty homes officer (Scottish Empty Homes Partnership, 2018). While not every empty home is brought back into use for affordable housing, the SEHP argues that making use of all available housing will contribute to meeting housing need across the sector. However, the Empty Homes Loan Fund, as part of the AHSP, is specifically intended to generate housing which is affordable. This was established in 2012, with a £4m investment and, to date, 17 organisations have received funding, some of which involve converting larger buildings into multiple residential units. The Scottish Empty Homes Partnership (2018) has outlined three models, with 'Loan to Let' being the most popular with homeowners, but 'Loan to Sell' and 'Loan to Occupy' being further options. In addition to these activities, the SEHP introduced a Local Projects Service in 2015 to provide support for local multi-unit homes projects which has resulted in four projects leading to 16 units being brought into use.

Construction and planning

The previous affordable housing report (Powell et al, 2015) argued that even with investment to boost the supply of affordable housing, two further significant considerations were required – the implications for the construction sector and for planning. In relation to construction, the authors noted that the sector would need to be geared up for engaging in a large-scale house building programme within the tight timescale of five years. This would require investment in appropriate training including large-scale apprenticeship and employment opportunities to equip the workforce with the necessary skills. A report by Smith (2019), stated that Scotland had a loss of over 40,000 construction workers in the post-recession period and that construction was one of the weakest sectors to recover from the recession in the period 2009-2014. Thus, although the industry has since shown signs of growth, with the construction sector receiving some of the highest investment in apprenticeships, there remains significant challenges. Specifically, Smith (2019) outlined that there are skills shortages in bricklaying, joinery and site management, with some ‘hotspot’ areas (such as the Highlands and South East Scotland) disproportionately suffering from such shortages. There is also a projected knowledge and skills gap in relation to new building standards (in the wake of the Grenfell fire), future construction technologies (including energy efficiency technologies), and skills for off-site construction, all areas that the Scottish Government has identified as critical for the future of house building. Finally, there are concerns that Brexit will hit the construction workforce as 3-4% of construction workers in Scotland are EU nationals (Smith, 2019).

In relation to planning, Powell et al (2015) recommended that more land needs to be made available for house building, including the potential use of contaminated brownfield sites. House building projects according to greenfield or brownfield sites can be measured using Housing Land Audits which assess the adequacy of housing land supply against policy requirements. A study published by Robertson (2019), however, found there are inconsistencies in the information contained making it difficult to gain a full picture of how much development has occurred on brownfield sites (particularly those that are contaminated). The new Planning (Scotland) Act 2019 stipulates that development plans must take into account the housing needs of the area and the availability of housing land to ensure that plans will meet proposed housing targets; a more prescriptive approach than previous legislation demanded (McGovern, 2019). It also includes provisions for meeting the housing needs of older and disabled people. However, a duty on planning authorities to analyse brownfield site options before applying to develop on Scotland’s green belt was removed from the legislation before it received Royal Assent (McGovern, 2019). An additional recommendation by Powell et al (2015) was to reconsider the stipulation in current planning policy that generally no more than 25% of the total number of houses in a market site should be for affordable housing (Scottish Government, 2014). This has remained unchanged although the requirements of the new legislation to account for local housing need may reshape this ceiling in years to come.

Summary

The previous 'Affordable Housing Need in Scotland' report (Powell et al, 2015) made several recommendations for policy and funding. These are reported here along with a brief note as to how they have progressed since 2015.

An affordable housing requirement of approximately 12,000 dwellings per annum over five years, amounting to 60,000 dwellings in total. The Scottish Government has pledged to deliver 50,000 affordable homes in a 5-year period from 2016-2021. This is at least 10,000 fewer than was recommended. Indications are that this target is within reach but there may be a shortfall to between 45,387 and 49,773; 34,850 of which will be for social rent.

Increase social housing grants and vary the level of subsidy to target it towards where it is most needed (e.g. geographically, more difficult sites, specialist housing). Over £3b has been committed by the Scottish Government to fund its target of supplying 50,000 new affordable homes by 2021. Subsidy benchmarks for council and RSL-provided housing have increased from £9,000 to £14,000 per unit as recommended by the SWG. There has also been a steady increase in the number of new homes purpose-built for older and disabled people since 2015. In 2015-16, 433 of these homes were built, 653 were built in 2016-17, and 744 were built in 2017-18 (Scottish Government, 2017b; 2018f; 2018g). A recent report on the topic of housing and ageing, however, indicated that more work is needed, especially in rural areas, to place housing at the heart of service integration and for older people's needs to play a more central role in the development of housing and communities (McCall et al, 2019).

The new Rural Housing and Islands Fund, and the higher subsidy benchmarks for rural communities, indicate a recognition of the higher costs involved in building in these areas and a commitment to boosting the supply of housing in these locations. However, it is important to note a recent publication by Rural Housing Scotland (2017) in which it found that most house completions classified as 'rural' by the Scottish Government were actually built in small towns or urban areas. The Scottish Government's definition of rural is 'a settlement comprised of fewer than 3,000 inhabitants'. When mapped against this definition, Rural Housing Scotland found that in 2016-17, only 28% of so-called 'rural completions' actually occurred in areas of less than 3,000 inhabitants. It will, therefore, be important to monitor not only how rural funds continue to be used, but where they are being used, to ensure rural housing need is actually met.

Ensure the construction sector is geared up for a large scale house building programme. The construction sector lost over 40,000 jobs in 2009-14 because of the recession. There have been signs of recovery and investment in apprenticeships. However, there are currently skills shortages in bricklaying, joinery and site management, as well as projected shortages in knowledge and skills relating to new building regulations, energy efficiency and other technologies, and off-site construction. The sector is also likely to be negatively affected by Brexit although the scale of this is unknown. Principle 6 of the Scottish Government's Housing to 2040 vision (Scottish Government, 2019g) needs to recognise that the links between construction labour supply and costs relate to the diversity of house builders and developers and the desire to support greater Small and Medium-sized Enterprises as well as community and social enterprises, custom-build and self-build all rely on a high quality and available construction workforce.

More investment in a new council housing programme (in light of the abolition of RTB). The number of council house dwellings (i.e. housing provided by the local authority) has steadily risen in the period 2015-2018 in comparison to the previous five-year period (Scottish Government, 2019d) but greater investment continues to be made in social housing provided by housing associations. There has been no notable commitment to a new council housing programme specifically but rather an overarching commitment to increase affordable and social housing as a whole.

More investment in making land available, and in environmental and infrastructure spending within more difficult sites (e.g. contaminated brownfield). The Housing Infrastructure Fund was introduced as part of the More Homes Approach to assist local authorities, RSLs and non-public organisations to unlock land for housing projects that can be completed by 2021. This fund is available for all tenures but priority is given to projects delivering affordable and private rental homes. The fund is not to be used for building housing but for infrastructure works such as roads and drainage which are necessary for supporting a housing development site. The Building Scotland Fund was announced in 2018 as a precursor to the Scottish National Investment Bank. The fund is open to non-public sector organisations including housing associations, and it can be used to build affordable housing as well as a range of other housing and commercial projects. Although there is a list of projects funded so far by the Building Scotland Fund on the Scottish Government's website (Scottish Government, 2019e) there is little publicly available information about whether or not the sites include contaminated brownfield.

Review the Scottish planning policy ceiling of 25% of new homes being affordable – this needs to rise to at least 64% to meet current demand. This ceiling currently remains unchanged but the new Planning (Scotland) Act 2019 stipulates that development plans must account for the housing needs of the area and the availability of housing land to ensure that plans will meet proposed housing targets. Therefore, the ceiling may be reshaped in light of these legislative changes.

More spatial targeting of low-cost home-ownership and MMR products. The new LAR Housing Trust which plans to deliver 1,000 MMR homes states on its website that although it intends to deliver these properties across Scotland, it has initially focused on Aberdeenshire, the Lothians, Fife and surrounding areas as these were identified as having the greatest need for MMR. The Open Market Shared Equity scheme operated by the Scottish Government sets maximum prices for the properties available in the scheme according to the local area. For example, the maximum threshold is higher in high-cost areas like Aberdeenshire. For New Supply Shared Equity schemes, local authorities are expected to liaise with RSLs in developing their Strategic Housing Investment Plans which should include any plans for such schemes and how they meet the housing targets in that area.

More attention on the changing nature of the PRS and a better understanding of the sector to inform demand and scope for MMR and low-cost home-ownership products. The introduction of the Private Tenancies (Scotland) Act 2016 saw the removal of the 'no fault' ground for eviction and replaced short-assured tenancies with the new private residential tenancy. This should provide more security, stability and predictability for tenants who can no longer be asked to leave their PRS home at a contract 'break'. The legislation also gives powers to local authorities to implement 'rent pressure zones' to place restrictions on how much rents can be raised by landlords within specified areas. These changes could make the PRS a more attractive and secure housing option for tenants. However, issues of affordability are likely to persist for several reasons including: (1) landlords still being able to make rent increases; (2) local authorities having discretion over whether they actually implement a rent pressure zone; (3) a lack of alternative options for many households; and (4) continuing problems with welfare cuts and changes. These affordability issues provide a rationale for MMR products and evidence indicates there is high demand for MMR in certain parts of Scotland (Boyle, 2019). Low-cost home-ownership products are likely to be influenced by the home-buying market as difficulties in raising large deposits is a significant barrier to home-ownership. However, for those living in the PRS looking to become homeowners, the expense of renting can hamper efforts to save for a home-buying deposit meaning low-cost home-ownership products may also be attractive for people in this situation.

Although MMR and low-cost home-ownership products are currently marginal options in comparison to more traditional tenures (home-ownership, private rent and social rent), their centrality within the More Homes Approach and the variety of new initiatives created to develop them suggests that they may become more prominent in the future. However, given that people in Scotland continue to aspire to become homeowners despite the challenges they face in doing so (Crawford and McKee, 2018; McKee and Soaita, 2018), if the cost of buying a home falls, this is likely to be the preferred tenure option for those who might otherwise have opted for MMR or low-cost home-ownership schemes.

4. Assessing affordable housing need at the local level

Introduction

Assessments of housing need are common features of local authority planning and have been a legal requirement in Scotland for approaching 20 years. This chapter considers this legal context, the role of the Centre for Housing Market Analysis (CHMA) and their support for Housing Need and Demand Assessments (HNDAs) before arguing that an alternative approach is required for a national assessment of affordable housing need.

Legal context

Since 2001 local authorities have been required to produce a Local Housing Strategy (LHS), underpinned by an assessment of housing need and demand, through the Housing (Scotland) Act 2001. The concept of affordable housing is at the very core of the LHS, with Kevin Stewart opening the Scottish Government's guidance with the statement: "This Government wants everyone to have a good quality home that they can afford and that meets their needs" (Stewart, 2019).

The LHS presents the opportunity for a local authority to set out, through evidence-based analysis and in collaboration with stakeholders, residents and tenants, their strategic vision for the housing that is required and in directing where investment should be made. A local authority's LHS includes a development plan, which dictates where housing should and should not be developed. This plan will work with the revised National Planning Framework (NPF4) following the Planning (Scotland) Act 2019. The LHS does not just consider the location and funding of new housing, but also brings in wider housing issues, such as support for homeless households, how housing will be managed and whether stock needs maintenance and capital expenditure for refurbishment.

Each local authority must have a relevant LHS regardless of the size of the area (which range in size from 26 square miles for Dundee up to 12,400 square miles for the Highlands) and the population (from 22,190 in Orkney to 626,410 in Glasgow (mid-year population estimates 2018, National Records of Scotland). However, these may be undertaken in partnership with other local authorities to provide a joint analysis of housing need. This has enabled several local authorities to work together to understand housing need across a larger regional geography, such as Angus, Dundee, Fife, Perth and Kinross authorities which produce the common TAYplan.

The 2019 LHS guidance is clear in the role of defining and prioritising the delivery of affordable housing through a clear and reliable evidence base. Section 7.1 of the guidance states:

"Local authorities, as both the statutory housing and planning authority, are responsible for assessing housing requirements, ensuring a generous supply of housing land and enabling the delivery of both market and affordable housing. The LHS should set out the authority's strategic vision for housing, taking into account national policy objectives and local priorities, based on need and demand evidence from the HNDA." (Scottish Government, 2019)

The Housing Need and Demand Assessment (HNDA) is a key part of the evidence base for local authorities. They estimate "the future number of additional housing units to meet existing and future housing need and demand" (CHMA, 2018a, p.3) as well as fulfilling a broader remit to help local authorities identify the key housing market trends and manage the existing stock. There is a strong emphasis in the need to use 'robust and credible' evidence to support the HNDA so that LHS' and development plans can accurately reflect the authority's needs.

The guidance in support of creating a HNDA that is deemed robust and credible by the CHMA argues that “estimates of housing need and demand fall into two categories and HNDAs must evidence both. These are: future need for households yet to form, and existing need experienced by households at the present time” (CHMA, 2018b, p.2). This may be more intuitively considered, future and current housing need respectively.

The official guidance for undertaking a HNDA is that policy is not a relevant consideration and should only emerge in the later Housing Supply Target (HST) decision. However, this could be criticised for projecting an idealised notion of the sufficiency of definitions of need and the consensus that objective measurement predicated on shared data assumptions is possible. As we argued in 2015; “housing “need” is itself a contested concept, commonly defined in subjective, as opposed to normative, terms and often conflated with the related but different concepts of “aspiration” and “demand.” (Powell et al., 2015, p.5).

LHS' have not remained constant throughout this period, not least through the expansion in use of a single tool in supporting their HNDAs (see below), but also responding to national priorities, such as the challenge of climate change. Now LHS' have to highlight how “homes can be adapted to mitigate the effects of climate change” (Kevin Stewart, in Scottish Government, 2019i, p.2). As such, assessments of the number of affordable housing units required are a fundamental, but only one of several, component of the wider LHS.

Housing Need and Demand Assessments (HNDAs)

HNDAs are now undertaken, almost universally using the Centre for Housing Market Analysis (CHMA) HNDA modelling tool. The CHMA is situated in the Directorate of Housing and Social Justice within the Scottish Government and is responsible for creating a flexible modelling tool that local authorities can use to support their analysis and the creation of tailored HNDAs. The HNDA tool, now updated to version 3.3, has been used by all local authorities as their primary assessment of housing need.

“...it was a lot simpler than it had been previously...for the last assessment we used [consultant] and it was a lot more complicated and bespoke...there are major benefits of using the standardised current model. This time round it was still a challenging process but definitely much easier. The discussion over the finer details is taken out of it” (Interview: local authority housing officer)

The HNDA tool allows a large degree of flexibility in the assumptions that are supported, but local authorities must verify that they have used statistically robust data in order to have the CHMA verify their HNDA. For example, the HNDA allows local authorities to define both housing market geographies and the core assumptions underpinning population projections, although in practice the vast majority of local authorities use the National Records of Scotland’s principal population projections (the date varies depending on when the HNDA is undertaken).

The inherent localised flexibility is a pragmatic approach to the dual recognition that both localised knowledge can enhance local assessments and that estimating housing need both now and projecting this need into the future is not an exact science. As we wrote in 2015 “there is no magical, “right” number that can be arrived at given the dynamism of local housing markets” (Powell et al., 2015, p.4). This view was reinforced by interviewees who argued that they needed to make decisions about which data to use that will determine housing numbers before considering dialogue across the partnership. The top level figures produced through the tool may also require further analysis at the local authority level to explore and disaggregate the results to produce evidence that is locally productive for an authority.

“More fine grained analysis will always require more research [on top of the HNDA] – e.g. housing market plans – HNDA process is arriving at an estimate of a range of future housing requirements, not necessarily producing the singular figure. Further work is required to understand what that means at a local level.”

(Interview: local authority housing officer)

The benefits of a common tool were however widely applauded in interviews with local authority officers and reducing the cost of producing a HNDA is very positive.

All affordable housing assessments make trade-offs between practicability, replicability and bespoke data and geography. The CHMA HNDA tool provides widespread replicability and practicability, but there are some inevitable trade-offs, such as incorporating data on smaller groups of people.

“...in some HMAS transactions are so low it’s difficult to draw any conclusions from them”

(Interview: local authority housing officer)

“...you can’t use the tool to estimate gypsy and traveller needs as the population is too small”

(Interview: local authority housing officer)

Accounting for the housing needs of gypsies and travellers was widely perceived to be challenging. This was due to the small size of the population, as well as the difficulty in calculating site provision for a population that can be transient in nature. It was argued that there needs to be a more holistic national approach to planning for their needs:

“It’s a very difficult thing to look at their housing needs and demands [at a local level]. It’s about that wider understanding of travelling routes which maybe needs to be looked at on a more national basis. There is a gap but we need to work out how to better engage and the best methodology to work out where we need the sites.” (Interview: local authority housing officer)

The Scottish Government expects local authorities to produce a housing need assessment, in support of their LHS, about every five years. The precise date, timing and frequency of LHS’ vary between authorities as they respond to different needs and resources. The age of HNDAs therefore varies quite widely, and actually beyond the expected five-year time frame, with current HNDAs advertised on some local authority websites dating back over eight years. Some local authorities’ HNDAs cover a short period of time, reflecting only the next five years, whilst some look at projected need over a much longer period, up to 20 years.

The CHMA modelling tool is designed to support local authorities in the production of their HNDAs. As described above, one of the great benefits of this is that the tool is flexible and alternative assumptions may be used to reflect both local knowledge and local policy contexts. One key input into the model is the decision about over what period the backlog of housing need should be 'met', i.e. over how many years the local authority will aim to meet its existing housing need. This period varies between five and 20 years between local authorities, meaning that the same housing backlog (assuming a flat newly arising need) would result in a fourfold greater annual requirement of affordable housing in the former model than the latter. Whilst a Scotland-wide assessment of housing need could technically use differentiated assumptions regarding the period to meet the backlog, it is not clear why those in housing need in one location should be modelled to have their need met at a slower rate than in another authority.

Whilst many local authorities are now ostensibly using the same CHMA modelling tool to underpin their housing need assessments, there remains some variation in the treatment of geography and core inputs and assumptions in the tool. When combined with the varied dates that the HNDAs were last conducted it is not possible to simply read across the HNDAs and sum them to provide a credible national assessment.

Given this context, in order to provide a national assessment of affordable housing need in Scotland it is necessary to undertake a single, internally consistent approach. As we also intend to compare the results of this model with the results of the work undertaken in 2015, it is necessary to ensure that the model used shares as many as possible of the same assumptions, methods and data as in 2015. After assessing the demographic trends and context we explain the key features of our model in chapter six.

5. Demographic trends and context

Introduction

This chapter sets out the demographic and housing context for the assessment of affordable housing need that follows. It presents projections on household growth alongside evidence of recent changes in housing provision. The context is provided at both the national and, where appropriate, the local authority level to illustrate national trends and some of the variation across the country. Further tables showing variations at local authority level are available in the annex to this report. Particular attention is paid to the datasets and trends which underpin the key components of the model utilised in the following chapter. The components considered here are:

- **Future household projections** are taken from the National Records of Scotland (NRS) published projections and are considered first as the primary driver of changes in housing demand, before recent housing trends are described.
- **House price changes** are analysed to inform the relationship between market demand and supply and housing market pressure.
- **Income and affordability** trends are presented to provide a more detailed view of the relationship between household economic changes and house price trends.
- **A classification of Scottish local authorities** used in the Scotland-wide assessment is then presented. This uses an expert interpreted hierarchical clustering of authorities based on housing and household characteristics.
- **New completions of social housing and newly available properties (re-lets)** are explored to ascertain the recent availability of social housing supply.
- **Homelessness** is a major contributory factor to the demand for affordable housing in Scotland. Open cases of presentations and recent trends in the flows of presentations and households assessed as homeless are analysed.
- **Changes to social housing stock** include both demolitions of social rented stock and Right to Buy properties. Recent trends are considered and recent changes to Right to Buy legislation contextualise the assessment of social housing supply.

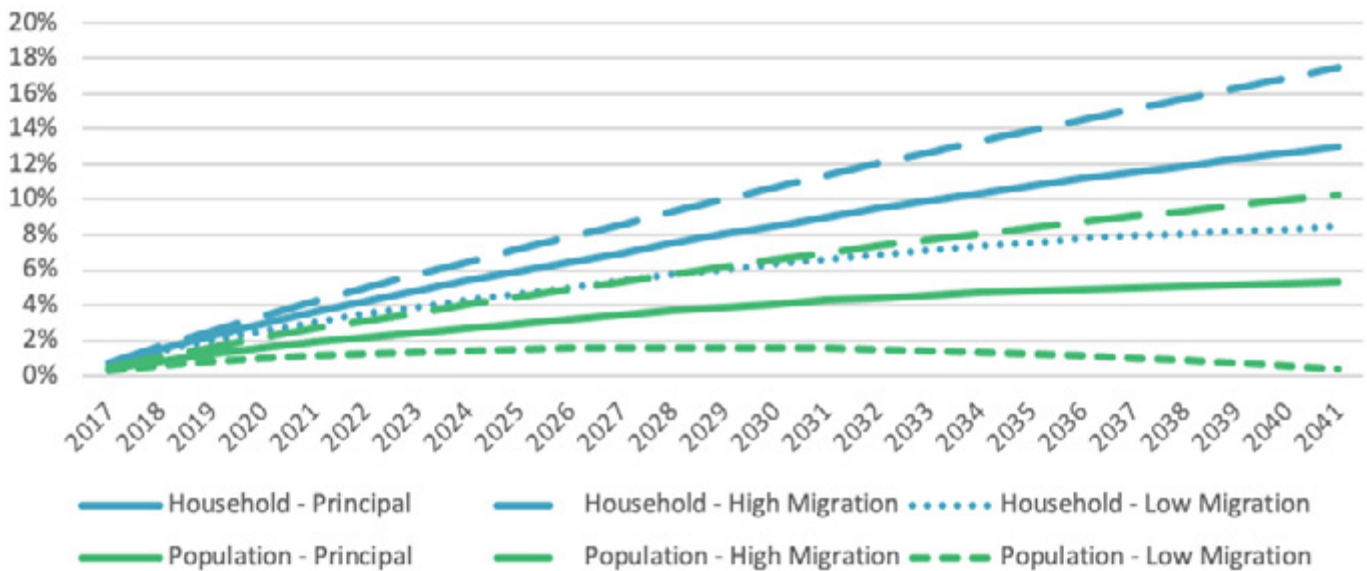
Household projections

The overall level of demand for housing in Scotland is partly contingent on the population and number of households. Figure 5.1 presents the National Records of Scotland (NRS) principal population and household projections (2016 based) and reveals a steady increase in the number of households in Scotland between 2021 and 2041, adding 228,000 to the national total (2,763,000 households by 2037). This represents a lower projection of growth than the 2012 based household projections estimated. The household projections grow at a faster rate than the overall population due to new household formation and decreases in average household size (from 2.14 in 2021 to 2.02 in 2041).

The projections are contingent upon migration assumptions, so the NRS produces alternative projections for high and low migration scenarios. Under these alternative assumptions the total household projection varies by 450,000 households by 2041 (NRS, 2018). The extent to which the future relationship between the United Kingdom and the European Union will impact upon future migration patterns is highly contested. The nature of the NRS projection methods is such that they reflect past trends, therefore they are partly contingent upon the extent to which recent migration patterns reflect the uncertainty of the future relationship between the UK and EU.

The national picture masks significant variation at the local authority level however. Midlothian, East Lothian and the City of Edinburgh are projected to grow by 19-26% over the 20-year period between 2021 and 2041 (see annex table A1 for more details). Whereas the number of households in Argyll & Bute, Inverclyde and Comhairle nan Eilean Siar is projected to decrease over the same period by 4-5% (NRS, 2018).

Figure 5.1: Household and population projection growth (2016-2041)



Source: National Records of Scotland, population and household projections, 2016 based (2018)

According to the NRS mid-year population estimates (2018), Scotland's population has been increasing slowly but relatively steadily since 2001; at mid-2018 it was 4% above the previous population peak in the 1974 (NRS, 2019). However, the NRS points out that:

"In the past two years since 30 June 2016, Scotland's population growth has slowed from 0.6% to 0.2% growth." (NRS, 2019b, p.2)

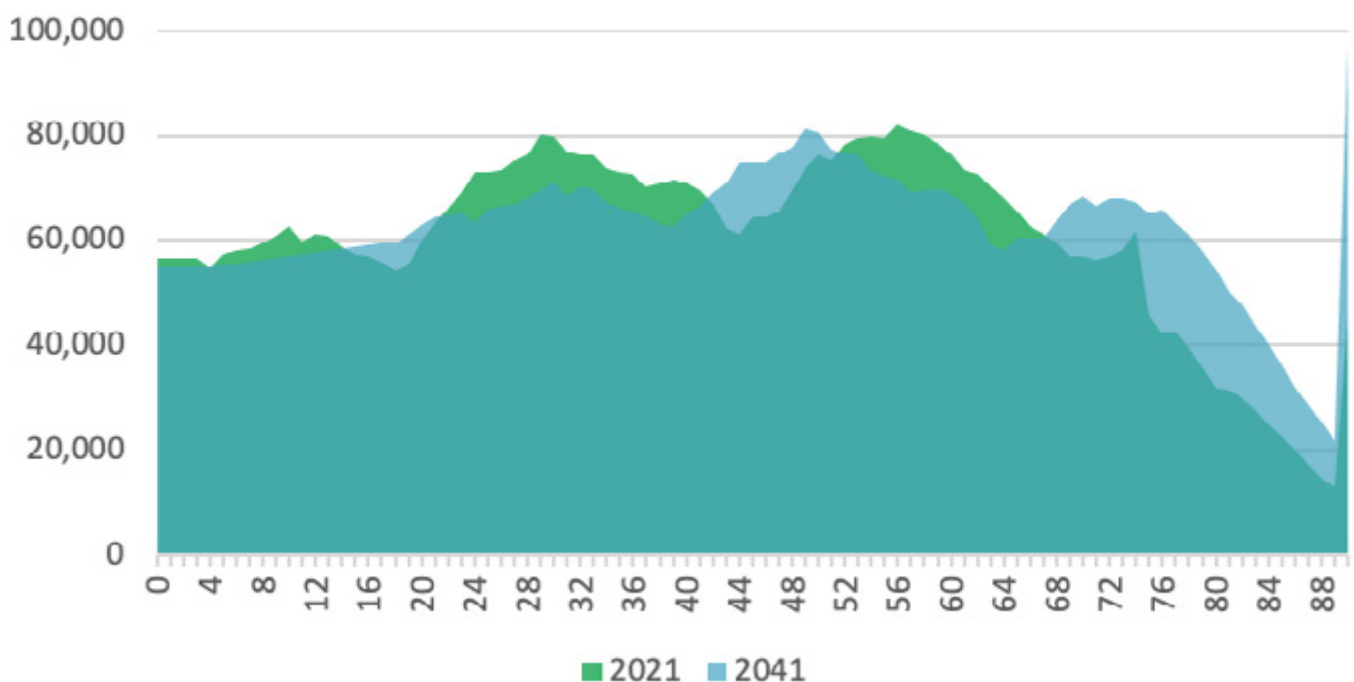
Net migration has been the cause of Scotland's growth in 2017-18, with both net gain in population from the rest of the UK and overseas (NRS, 2019b). Scotland experienced a negative natural change with 7,700 more deaths than births in 2017-18 (NRS, 2019b).

Population structure

The population structure of Scotland has undergone a profound change in the latter half of the twentieth century and start of the twenty first. Between 1998 and 2018 there was a 31% increase in the population 75 years and over, and a 28% increase in those age between 65 and 74 (NRS, 2019b).

The population structure is expected to continue in this trend with an increasingly ageing structure by 2041 with the current population bulge of 45-60 year olds moving forward into the 65 and older age category (NRS, 2019b) (see figure 5.2).

Figure 5.2: Projected population structure in 2021 and 2041



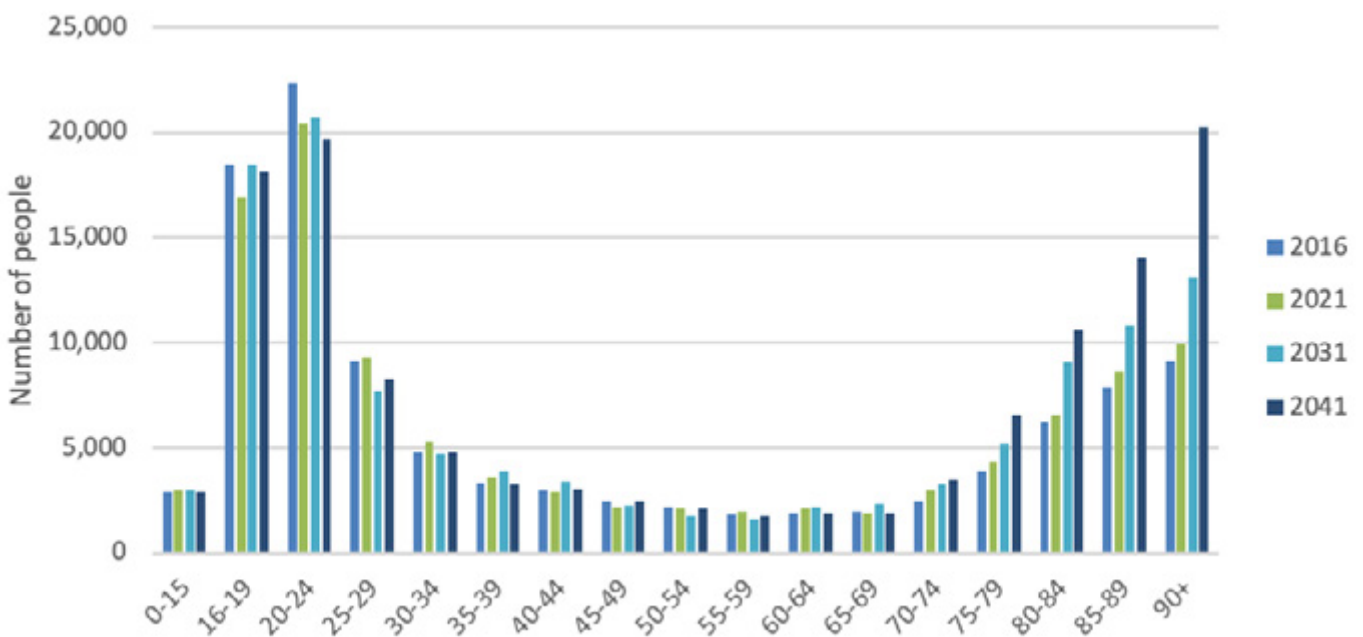
Source: National Records of Scotland, population and household projections, 2016 based (2018)

Scotland’s increasingly ageing population structure inevitably has implications for its present and future housing needs. The proportion of people living in residential accommodation increases from age 70, and dramatically so from age 80. As the population structure as a whole becomes more skewed towards older age groups, decisions on how to house an increasing elderly population will need to be made. Figure 5.3 gives the projected number of people of different age groups who live in residential accommodation in 2016 and shows projections for the numbers who will live in residential accommodation for each age group if the proportion in residential accommodation is fixed at 2016 levels.

This suggests that if the proportions remain at 2016 rates, by 2041 the number of people over 70 living in residential accommodation would almost double. It seems unlikely that the capacity of residential care will increase to this extent and that, therefore the number of older households will increase faster than projected.

In order to accommodate these demands, action will be required both to increase the quantity of residential accommodation available and to expand the provision of aid to older people remaining in their own homes. Scotland’s ageing population and longer life expectancy has been recognised by the Government and is one of the key challenges identified in Housing to 2040 (Scottish Government, 2019g). As a result of the changing population structure there will be a requirement for housing adaptations to meet residents needs in situ (where appropriate) and new specialist accommodation to support households wishing to move in line with the Government’s pledge to support older household mobility (CIH Scotland, 2020).

Figure 5.3: Projected number of people in residential accommodation: 2021, 2031, 2041

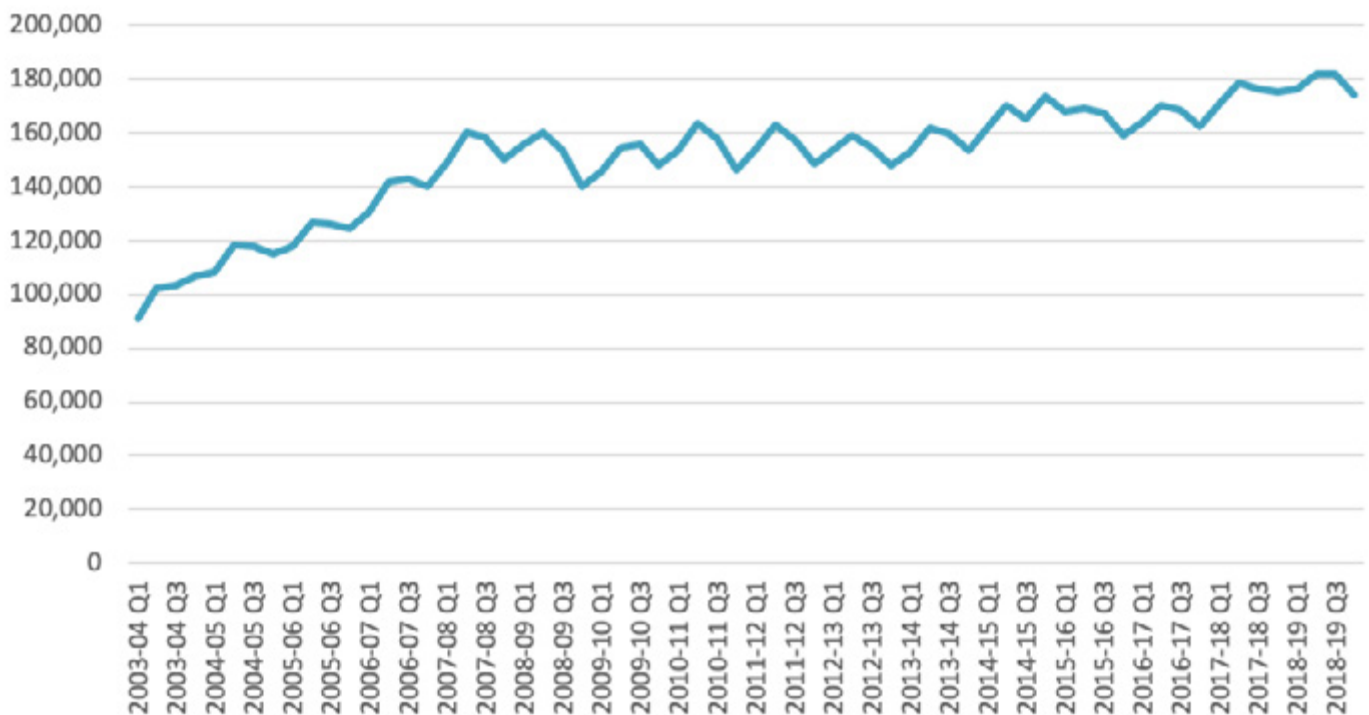


Source: Duncan Grays, (commissioning team) calculations (2019)

House price changes

House price changes are both a signal of the outcomes of actions in the housing market and an indicator to participants in it. House price data for Scotland drawn from the Registers of Scotland (RoS) are presented in figure 5.4 below, revealing a period of slower growth over the last ten years at the national level than was experienced in the years preceding the financial crisis. The data are neither weighted nor seasonally adjusted, and susceptible to changes in the volume of sales.

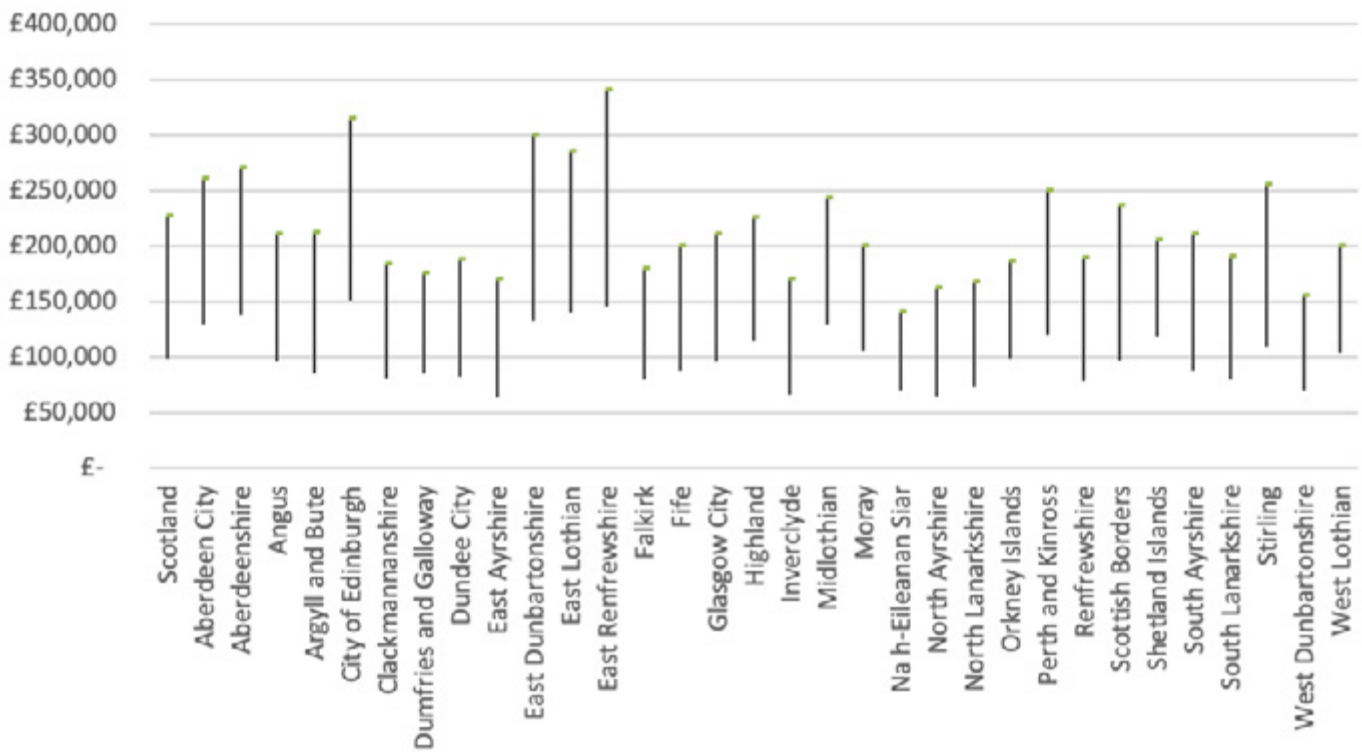
Figure 5.4: Average house prices in Scotland 2003-2019



Source: RoS (Residential property £20,000-£1million)

The affordability of housing is influenced by both house price changes and changes in incomes. The appropriate level of analysis for issues of affordability is often lower quartile house prices and lower quartile incomes. At the time of writing, these data were not available; neither time series data nor the most recent year. Instead median incomes and mean house prices have been used to represent the overall trend in prices and incomes. These are shown in figure 5.5 below. It should be noted that these trends are unlikely to be equivalent to those at the lower quartile level. Median incomes have risen steadily since 2004, whilst house prices have been more volatile. The variation in the ratio of house prices to incomes is a result of the changes in house prices rather than income fluctuations (although this is at the Scotland-wide scale and there may be significant variation between house price pressures and incomes at the housing market and local authority level).

Figure 5.5: Median house prices and mean incomes in Scotland

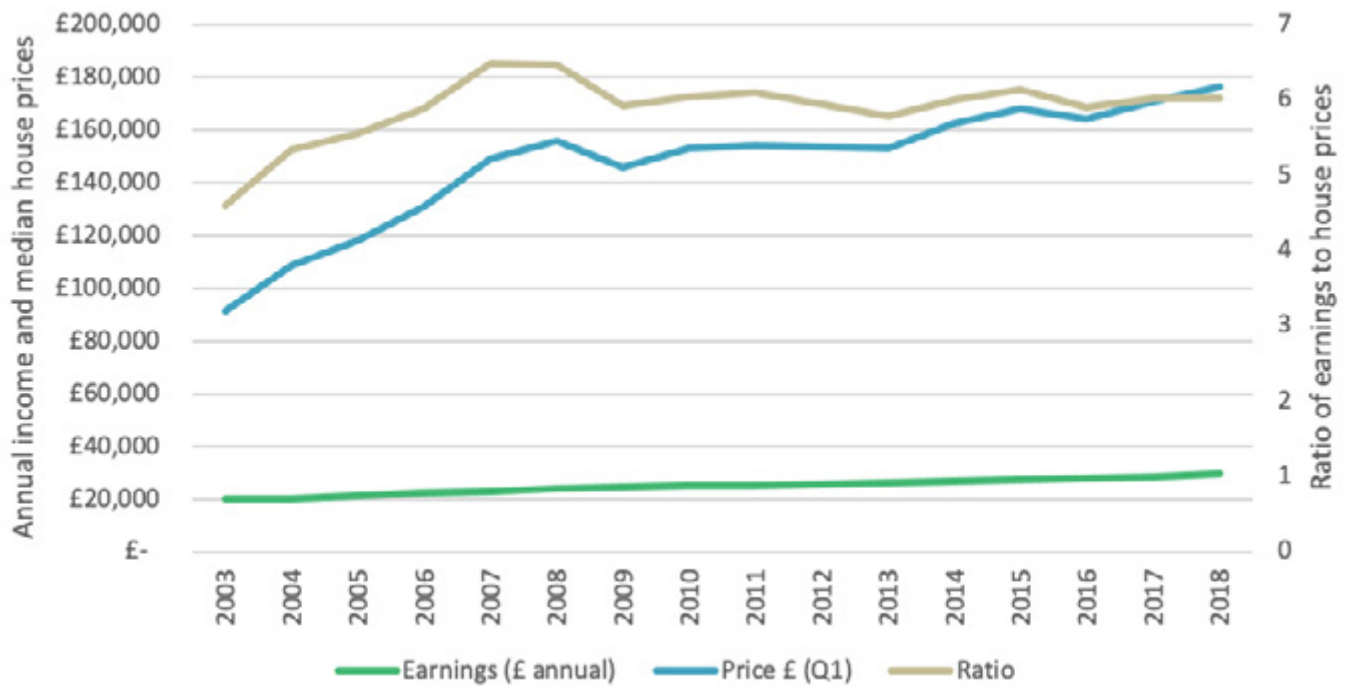


Source: Median annual income: Annual Survey of Hours and Earnings, ONS – weekly income grossed up to annual income. House price: Registers of Scotland.

House prices by local authority area

House prices vary significantly across local authorities in Scotland. Figure 5.6 shows the lower quartile, median and upper quartile house prices in 2017 by local authority (this data was provided by the Scottish Government and represents a single point in time).

Figure 5.6: Lower quartile to upper quartile house prices (2017) by local authority

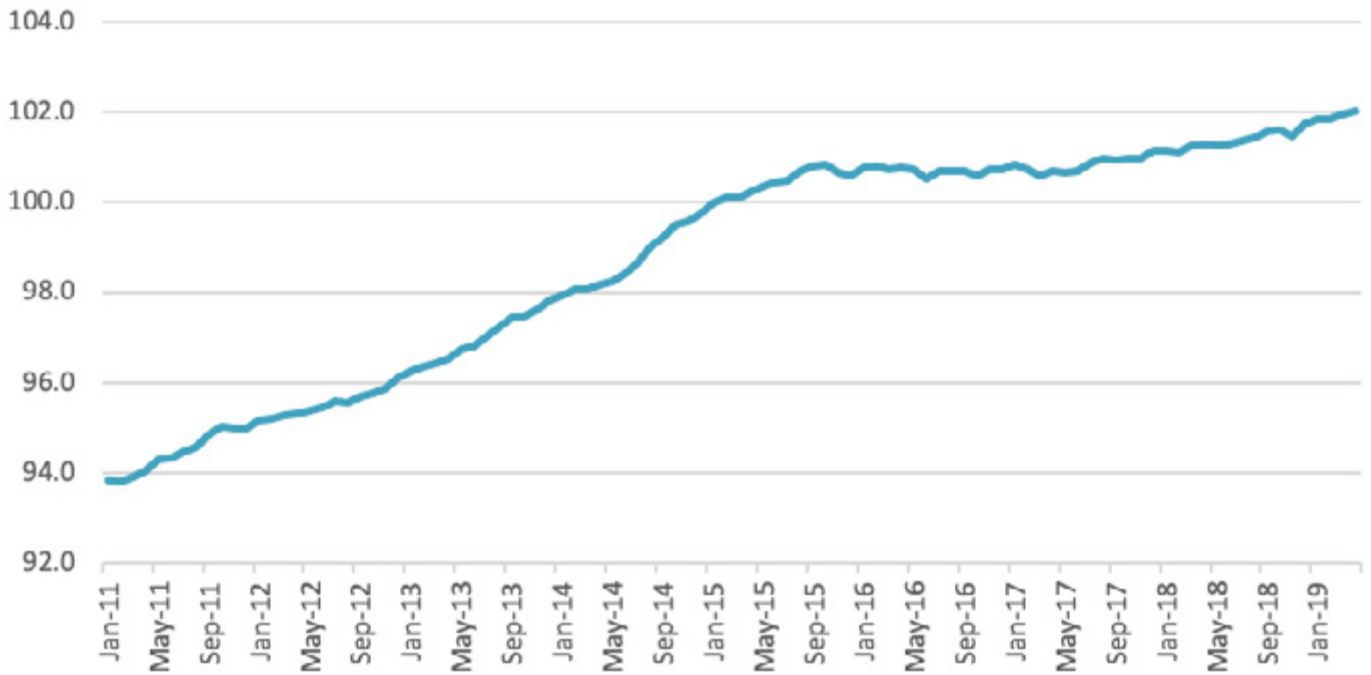


Source: Scottish Government, 2018

Both private house sale prices and private rents have seen increases in recent years. Whilst house prices have exhibited both seasonal and annual volatility, market rents in Scotland have experienced much less, with a steady increase between 2011 and 2015, followed by a plateauing and slower rate of increase thereafter, as shown in Figure 5.7. Between 2011 and 2015 the Index of Private Housing Rental Prices fell in only three months, and the rental index at the end of every quarter was higher than at the start of that quarter. Since 2015 the Index of Private Rental Prices has increased at a slower rate, exhibiting limited volatility within a general upward trend.

Collecting accurate information about rental prices is difficult. The index is an experimental statistic produced by the Office for National Statistics (ONS). It uses data from the Scottish Government collected for purposes other than producing the index and should therefore be treated with a degree of caution. That said, it does illustrate a very clear trend of rent inflation over the period.

Figure 5.7: Index of rents (2011-2019, January 2015 = 100)

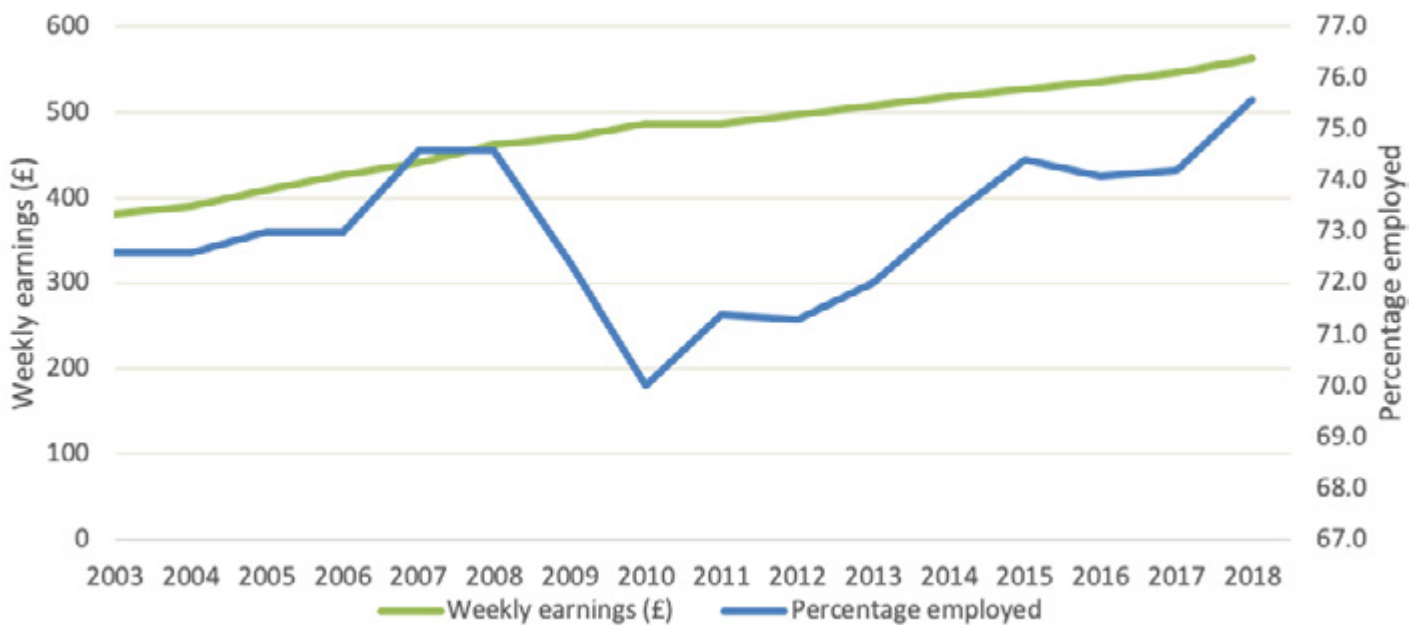


Source: ONS, Experimental Index of Private Housing Rental Prices

Incomes and affordability

Figure 5.8 below shows that the average weekly income in Scotland has increased steadily in recent years, with no significant period of stagnation or decline since 2002. The data collected by the ONS represent resident analysis from the Annual Survey of Hours and Earnings (ASHE), with median earnings given in pounds for employees living in the area. Whilst average incomes have increased, the proportion of working age people in employment has fluctuated by 3% over the same period. The employment rate fell after the financial crisis in 2007 but picked up again from mid-2010. Downturns have followed in 2012 and 2016, though by 2018 the proportion of residents in work was back above its previous recent peak in 2007. However, some care should be taken in observing the overall employment figure without recognising that many in-work households are also in poverty and that many jobs, particularly those in the 'gig economy' and those on zero-hours contracts, whilst in work are precarious. Thus, overall employment masks a segmented and precarious labour market where those in housing need are most likely to find themselves.

Figure 5.8: Median weekly earnings and percentage of workforce employed

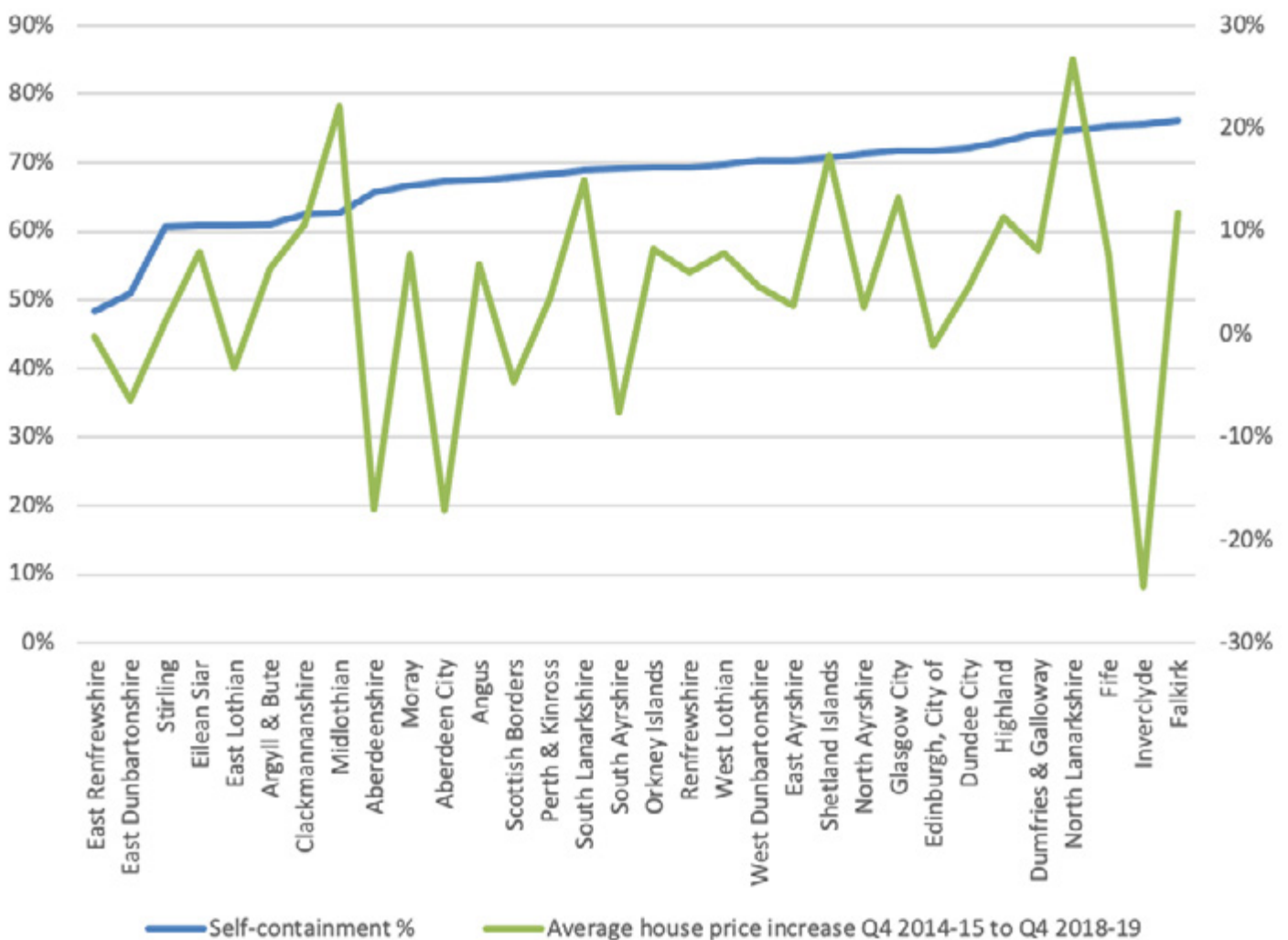


Source: Nomis, Labour Force Survey Indicators

Self-containment

Housing market self-containment is an indicator used to define the boundaries of areas in which demand for housing is relatively self-contained. An understanding of the geography of house moves supports locational decision-making in the planning and development of new housing. While more sophisticated techniques have been developed, the self-containment of house moves in local authority areas can be estimated using migration figures from the 2011 Census of Population. Figure 5.9 arranges Scottish local authorities in order of self-containment, with figures taken from the 2011 Census of Population, plotting this alongside average house price change between Q4 2014-15 and Q4 2018-19. Falkirk and Inverclyde showed the highest level of self-containment, at 76%, while East Renfrewshire showed the lowest, with 48% of home moves originating internally. The median figure for self-containment was 69%. We do not explicitly model the amount of housing need that can be met in other local authorities, assuming that the majority of housing need arising within each local authority should be met within that authority. However, relaxing this assumption may produce a lower overall housing need number, but is predicated on the willingness of households moving in order to fund suitable accommodation, something which may not be socially desirable for many households.

Figure 5.9: House Price changes and self-containment for each local authority



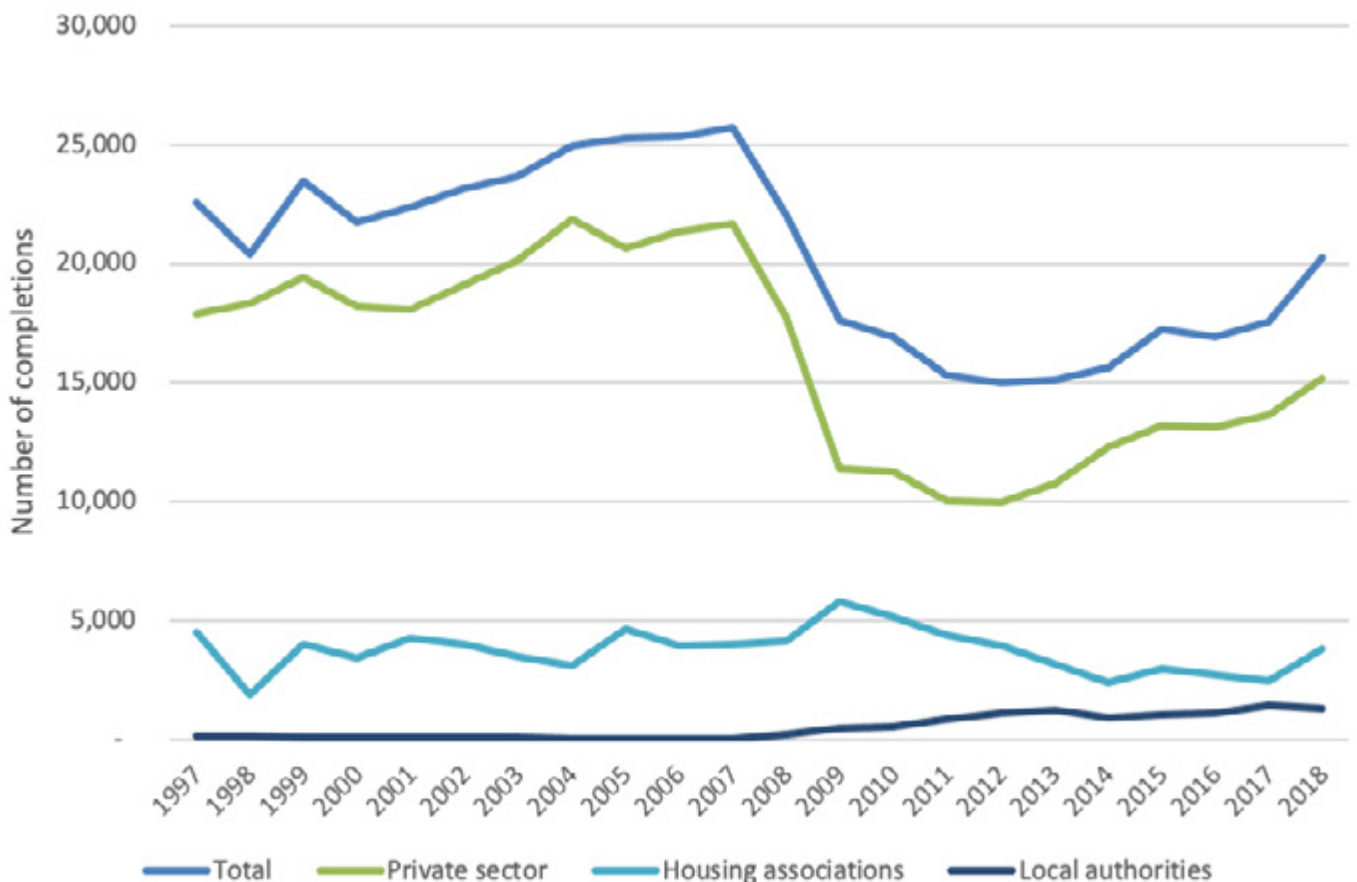
Source: Census of Population, 2011; RoS house price data.

Supply of new build social rented sector dwellings

Scotland has long had a significant social housing sector, such that by the end of 1984 just over half of Scotland's housing stock was socially rented, with 96% of this provided by local authorities. By 2014 this proportion had fallen to 23%, of which 53% was provided by local authorities (Scottish Government, 2019), representing a similar trend to that found elsewhere in the UK. Yet Scotland continues to have the highest proportion of social housing by tenure of all UK nations (Stephens, 2017) and since devolution in 1999 has pursued a divergent path to other UK nations, abolishing Right to Buy and setting out to increase its supply of affordable housing (Serin et al, 2018). New build social rented sector dwellings contribute significantly to affordable housing in Scotland. It is useful to contextualise these new dwellings within the overall picture of new house building, both to understand market provision and the potential for affordable housing contributions in new development.

As figure 5.10 illustrates, during the period from 1997 to 2007 house building increased to more than 25,000 units per annum (social and private). There followed from 2007 a significant decrease to just over 15,000 units completed in 2014. The downward trend in house building conforms to wider trends in the UK since the onset of the financial crisis in 2007. 2014 did, however, represent the first year since 2007 that the year-on-year number of dwellings completed increased, from 14,884 in 2013 to 15,541 in 2014. This has proven to be the beginning of an upward trend, reaching just over 20,000 units completed in 2018.

Fig 5.10: Number of new dwellings completed per annum in Scotland



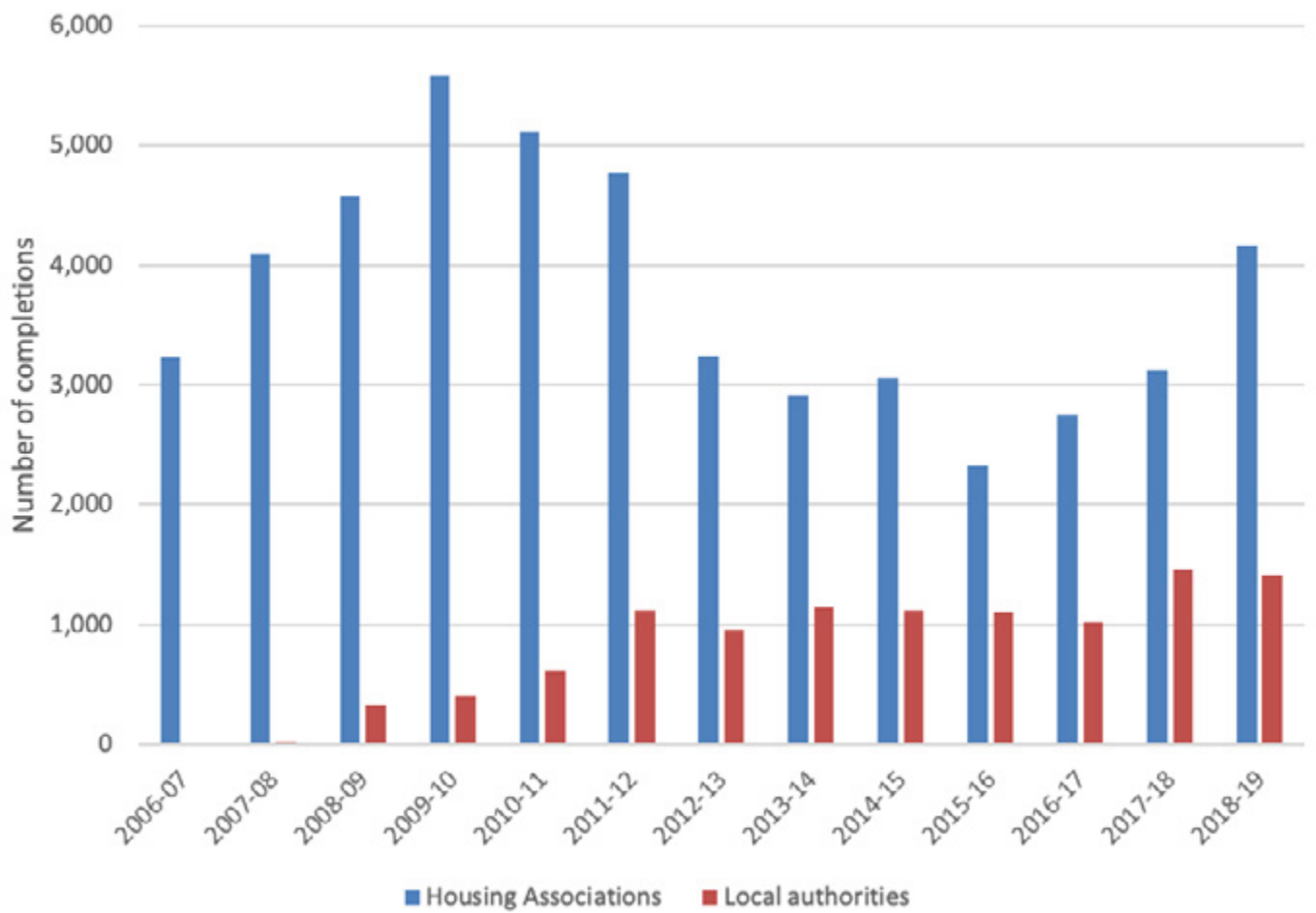
Source: Scottish Government, Housing Statistics for Scotland.

The supply of new social sector housing completions per 1,000 dwellings by local authority since 2014 is shown in table 5.1. The trend over the longer term has been that of a steady decline at the national level. Looking back slightly further than the data presented in table 5.1, in 2010 5,700 new dwellings were completed, but by 2014 this had fallen to 3,200 - a decrease of 44%, albeit the 2010 figure partly reflects counter-cyclical decisions to bring forward investment from later years. The 2014 figure has proven to be a low point in recent social housing completions, as by 2015 the figure had increased to close to 2013 levels. This rate of completions was maintained until a significant increase to 5,103 completions in 2018. It is not yet clear whether the 2018 figure represents the beginning of a longer-term upward trend.

Like the population of Scotland and the overall social sector stock, the development of new social housing is geographically varied. Glasgow City, for example, accounted for 16% of all new social sector builds in Scotland in 2018; and Edinburgh 10%. Year-on-year variation in delivery creates some differences but, taking a five-year average, Glasgow accounts for 21%; and Edinburgh 8%. Fife is the third largest provider of social housing over the five-year period up to 2018, their count being slightly less than Edinburgh's but rounded up to 8%. Examining the number of social housing completions per 1,000 dwellings, as in table 5.2, Glasgow City remains among the highest completion rates, while smaller local authorities Orkney and Shetland show the highest completion rates over the five-year period, albeit from a very low base.

Over the period covered in figure 5.10 a considerable majority of completions were from the private sector, albeit the relative proportions from the different sectors narrowed greatly following the financial crisis. While the number of completions by housing associations has remained fairly constant since the 1990s, completions by local authorities have increased rapidly over the past fifteen years, from being consistently in double figures or below between 1999 and 2007 to their recent peak of 1,436 in 2017. This increase in public sector building activity corresponds to the introduction of the Affordable Housing Supply Programme in 2011 and the successive amendments to the Right to Buy policy beginning in 2001 and culminating in its abolition in 2016. Figure 5.11 shows the steady increase in completions by local authorities against those by housing associations.

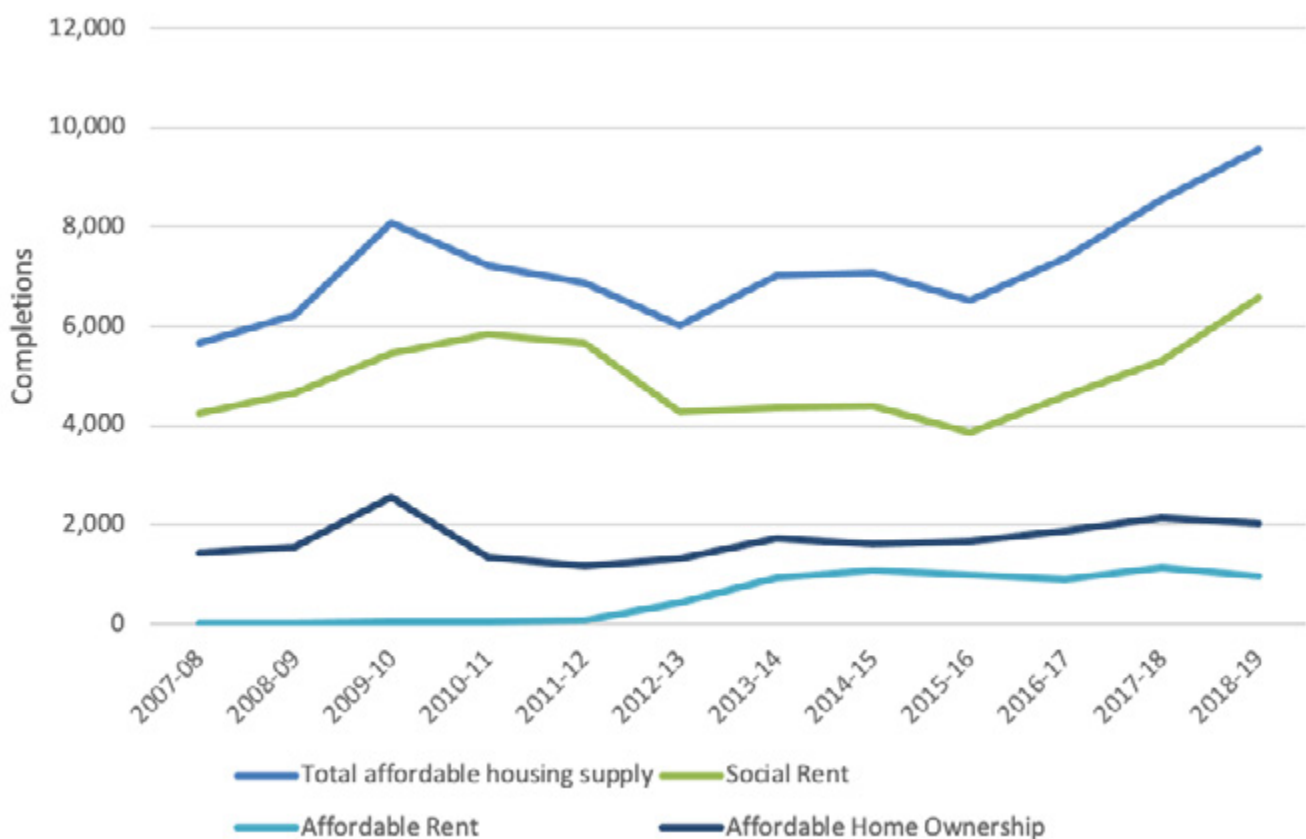
Fig. 5.11: Supply of new-build social sector dwellings completed per financial year, 2006-07-2018-19



Data source: Scottish Government, Housing Statistics for Scotland.

The social housing sector, in which social housing is rented at affordable rates for secure tenancies by local authorities and Registered Social Landlords, is supplemented by a variety of low-cost ownership and mid-market rent programmes. The term ‘affordable housing’ includes housing delivered under such programmes, in addition to social housing. This broader category of provision has been the focus of the Scottish Government’s Affordable Housing Supply Programme (for more detail on which see chapter six), completions for which display a broader picture than that shown by supply of social housing only and are shown between the financial years 2007-08 and 2018-19 in fig. 5.12. Completions for both affordable rent and affordable home ownership were below those for social rent for each year since 2007-08. Since 2015-16 the number of social rent completions has begun to increase markedly, reaching 6,564 in 2018-19, while completions for affordable home ownership have remained stable over the period considered. Considering the model’s suggestion that a smaller proportion of newly forming households will be able to afford market prices and rents than was the case in 2015-20, this trend will likely need to continue. Completions for affordable rent were below 100 per year until 2012, since when numbers have increased to bring them closer to those for affordable home ownership.

Figure 5.12: Supply of Affordable Housing Supply Programme dwellings (new build and refurbished), by type, by financial year, 2007-08 to 2018-19



Data source: Scottish Government, Affordable Housing Supply tables

Like the population of Scotland and the overall social sector stock, the development of new social housing is geographically varied. Glasgow City, for example, accounted for 16% of all new social sector builds in Scotland in 2018; and Edinburgh 10%. In order to account for the unevenly distributed populations of local authority areas, the supply of new social sector housing completions per 1,000 dwellings by local authority since 2014 is shown in table 5.1. Glasgow City remains among the highest completion rates, while smaller local authorities Orkney and Shetland show the highest completion rates over the five-year period examined.

Table 5.1: New social sector housing completions by council area per annum, 2014-18

Local authority district	2014	2015	2016	2017	2018	5 year average
Aberdeen City	159	93	15	102	166	107
Aberdeenshire	20	40	73	70	255	92
Angus	21	82	30	76	68	55
Argyll & Bute	115	40	133	88	80	91
Clackmannanshire	26	6	69	78	31	42
Dumfries & Galloway	389	99	43	95	58	137
Dundee City	0	44	117	87	128	75
East Ayrshire	18	136	52	50	153	82
East Dunbartonshire	109	66	108	45	52	76
East Lothian	0	58	36	108	86	58
East Renfrewshire	0	24	35	33	20	22
Edinburgh, City of	249	321	376	145	513	321
Falkirk	183	124	82	26	30	89
Fife	138	250	211	817	151	313
Glasgow City	737	1,197	741	723	807	841
Highland	159	220	182	260	346	233
Inverclyde	0	41	62	0	109	42
Midlothian	20	48	69	87	103	65
Moray	89	59	99	72	79	80
Comhairle nan Eilean Siar	8	47	18	24	4	20
North Ayrshire	146	132	47	33	265	125
North Lanarkshire	55	186	190	148	341	184
Orkney	23	32	51	57	40	41
Perth & Kinross	18	94	112	115	191	106
Renfrewshire	95	117	123	77	127	108
Scottish Borders, The	21	115	90	16	176	84
Shetland	67	26	14	37	27	34
South Ayrshire	35	0	196	29	64	65
South Lanarkshire	84	113	197	199	142	147
Stirling	84	62	74	13	75	62
West Dunbartonshire	111	91	20	79	104	81
West Lothian	136	45	165	136	312	159
Scotland	3,315	4,008	3,830	3,925	5,103	4036

Source: Scottish Government, Housing Statistics for Scotland.

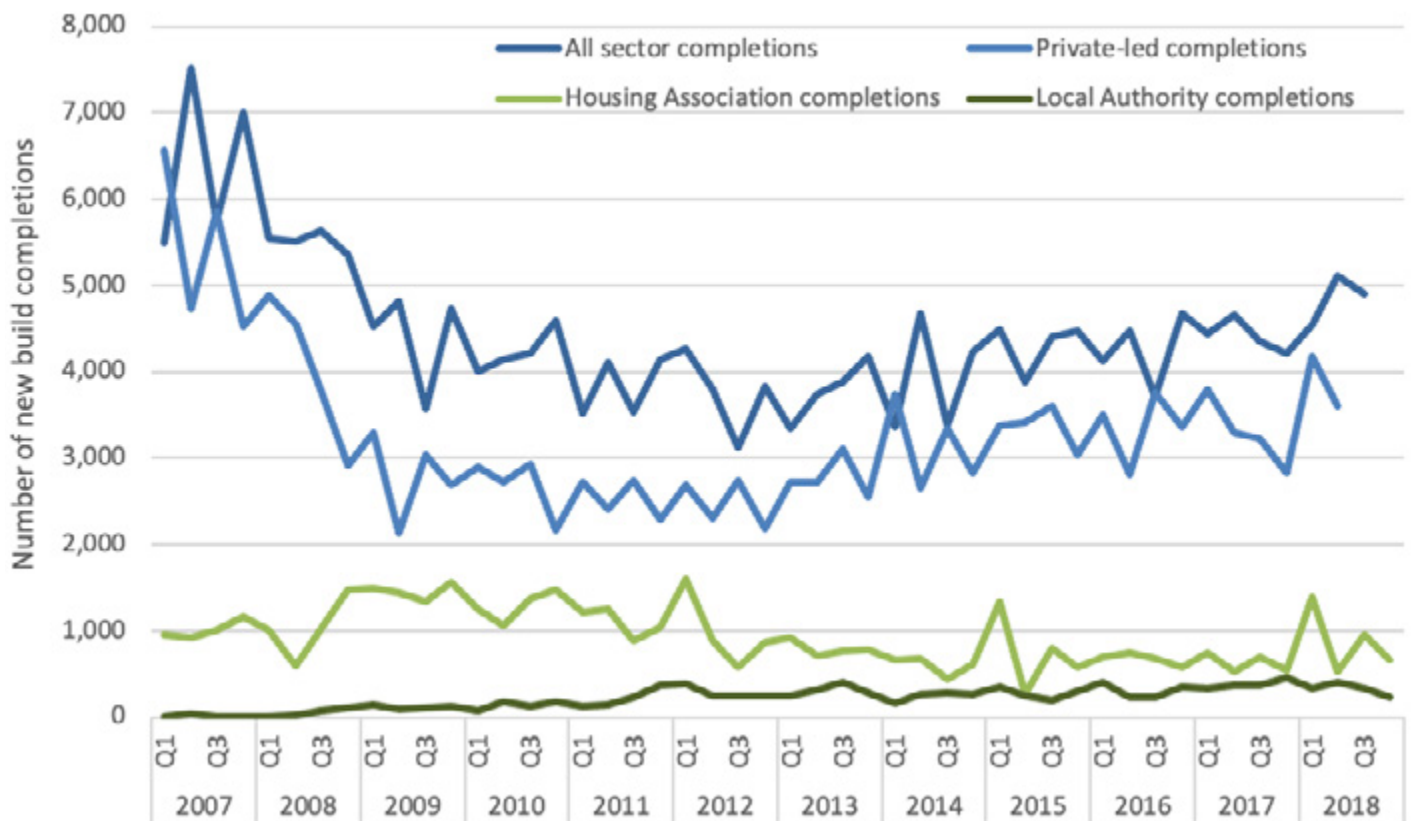
Table 5.2: New social sector housing completions per 1,000 dwellings, by council area per annum, 2014-18

Local authority district	2014	2015	2016	2017	2018	5 year average
Aberdeen City	1.40	0.81	0.13	0.87	1.41	0.92
Aberdeenshire	0.18	0.35	0.63	0.60	2.16	0.78
Angus	0.38	1.47	0.54	1.35	1.20	0.99
Argyll & Bute	2.42	0.84	2.78	1.84	1.67	1.91
Clackmannanshire	1.08	0.25	2.85	3.20	1.26	1.73
Dumfries & Galloway	5.26	1.33	0.58	1.27	0.78	1.84
Dundee City	0	0.60	1.58	1.17	1.72	1.01
East Ayrshire	0.31	2.36	0.90	0.86	2.62	1.41
East Dunbartonshire	2.41	1.44	2.35	0.97	1.11	1.66
East Lothian	0	1.25	0.77	2.28	1.79	1.22
East Renfrewshire	0	0.63	0.91	0.85	0.51	0.58
Edinburgh, City of	1.04	1.33	1.54	0.59	2.05	1.31
Falkirk	2.52	1.69	1.11	0.35	0.40	1.21
Fife	0.80	1.44	1.21	4.64	0.85	1.79
Glasgow City	2.44	3.94	2.42	2.35	2.59	2.75
Highland	1.39	1.90	1.56	2.22	2.93	2.00
Inverclyde	0	1.06	1.60	0	2.80	1.09
Midlothian	0.52	1.24	1.76	2.18	2.54	1.65
Moray	2.03	1.34	2.23	1.61	1.75	1.79
Comhairle nan Eilean Siar	0.55	3.22	1.23	1.63	0.27	1.38
North Ayrshire	2.17	1.95	0.69	0.49	3.89	1.84
North Lanarkshire	0.36	1.22	1.24	0.96	2.19	1.20
Orkney	2.13	2.93	4.61	5.09	3.55	3.66
Perth & Kinross	0.26	1.33	1.57	1.60	2.64	1.48
Renfrewshire	1.13	1.38	1.43	0.89	1.46	1.26
Scottish Borders, The	0.37	2.00	1.55	0.28	3.01	1.44
Shetland	6.12	2.36	1.26	3.31	2.40	3.09
South Ayrshire	0.64	0	3.57	0.52	1.15	1.18
South Lanarkshire	0.57	0.76	1.32	1.33	0.94	0.99
Stirling	2.08	1.53	1.80	0.32	1.81	1.51
West Dunbartonshire	2.48	2.02	0.44	1.75	2.30	1.80
West Lothian	1.76	0.58	2.10	1.72	3.91	2.01
Scotland	1.30	1.57	1.49	1.51	1.95	1.56

Source: Scottish Government, Housing Statistics for Scotland.

Although the supply of new-build social sector dwellings has been falling in recent years across Scotland, only increasing again in 2018, figure 5.13 below illustrates that there has been an increase in the number of council properties being built over the period 2007-18. This is a reflection of the Scottish Government's target to provide 30,000 affordable new homes over the current Parliament, 5,000 of which are intended to be council houses (see chapter six). However, local authority completions still remain much lower than the number developed by RSLs.

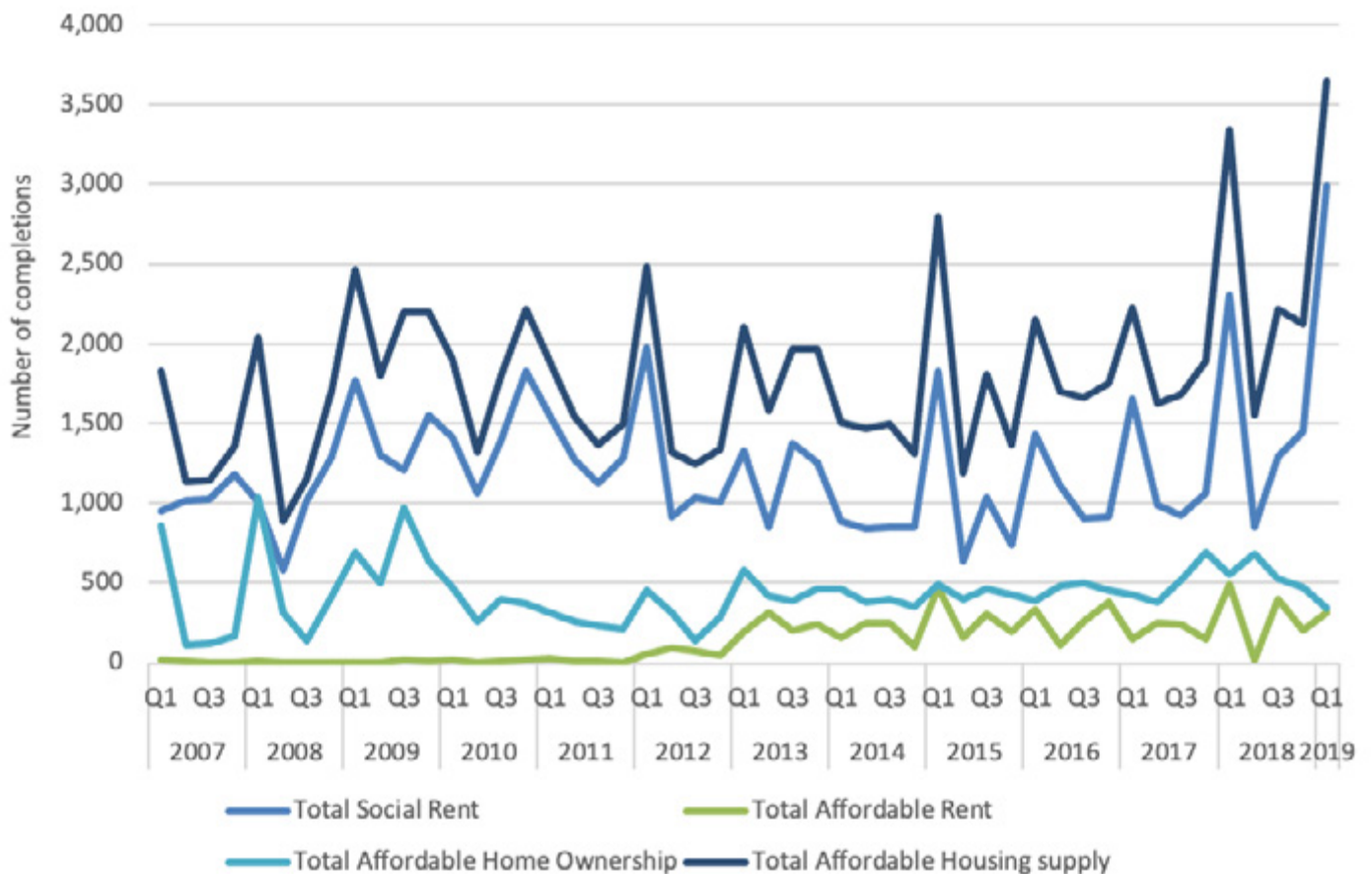
Figure 5.13: Supply of new-build social sector dwellings, per quarter, 2008-18



Source: Scottish Government, Housing Statistics for Scotland.

As described in chapter three, the social housing sector, in which social housing is rented at affordable rates for secure tenancies by local authorities and Registered Social Landlords, is supplemented by a variety of low-cost ownership and mid-market rent programmes. The term ‘affordable housing’ includes housing delivered under such programmes, in addition to social housing. This broader category of provision has been the focus of the Scottish Government’s Affordable Housing Supply Programme (for more detail see chapters three and six), completions for which display a broader picture than that shown by supply of social housing only and are shown between 2007 Q1 and 2019 Q1 in fig. 5.14. Completions for both affordable rent and affordable home-ownership were below those for social rent for each year since 2007, though the difference in completions between categories varied over the time period, with the number of homes for affordable ownership briefly exceeding those for social rent during 2008 Q1 but otherwise remaining some distance apart. Since 2017 Q1, the number of social rent completions has begun to increase markedly, reaching 3,000 in 2019 Q1, a high point for the period considered, while completions for affordable home-ownership and affordable rent have remained stable since 2010. Completions for affordable rent were below 100 per year until 2012, since when numbers have increased to bring them close to those for affordable home ownership.

Figure 5.14: Supply of Affordable Housing Supply Programme dwellings (new build and refurbished), by type, per quarter, Q1 2007 to Q1 2019

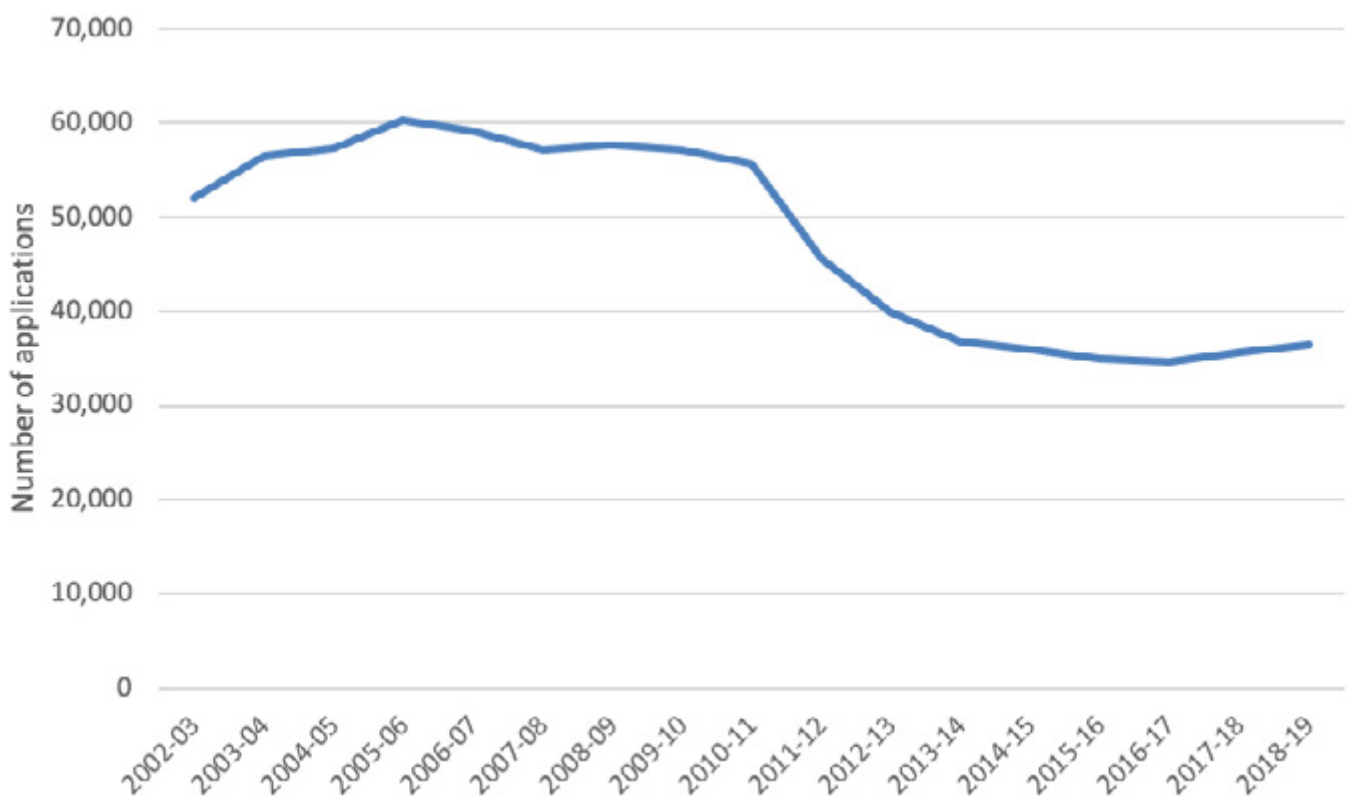


Source: Scottish Government, Affordable Housing Supply tables

Homelessness

Homelessness is a significant source of demand for affordable housing in Scotland. The total number of homeless households requiring housing over the next five years comprises: households that are currently homeless (or waiting to be assessed as homeless); and households that will become homeless during the next five years. Total homelessness is therefore both a stock and flow cause of affordable housing demand. Figure 5.15 displays the number of applications for homelessness made in Scotland between 2002-03 and 2018-19, showing an overall decline in applications since 2005-06, though with a more recent rise. During the financial year 2018-19, 29,894 applications were considered to represent cases of homelessness or the threat of homelessness in Scotland, representing a rise of 2% on the previous year.

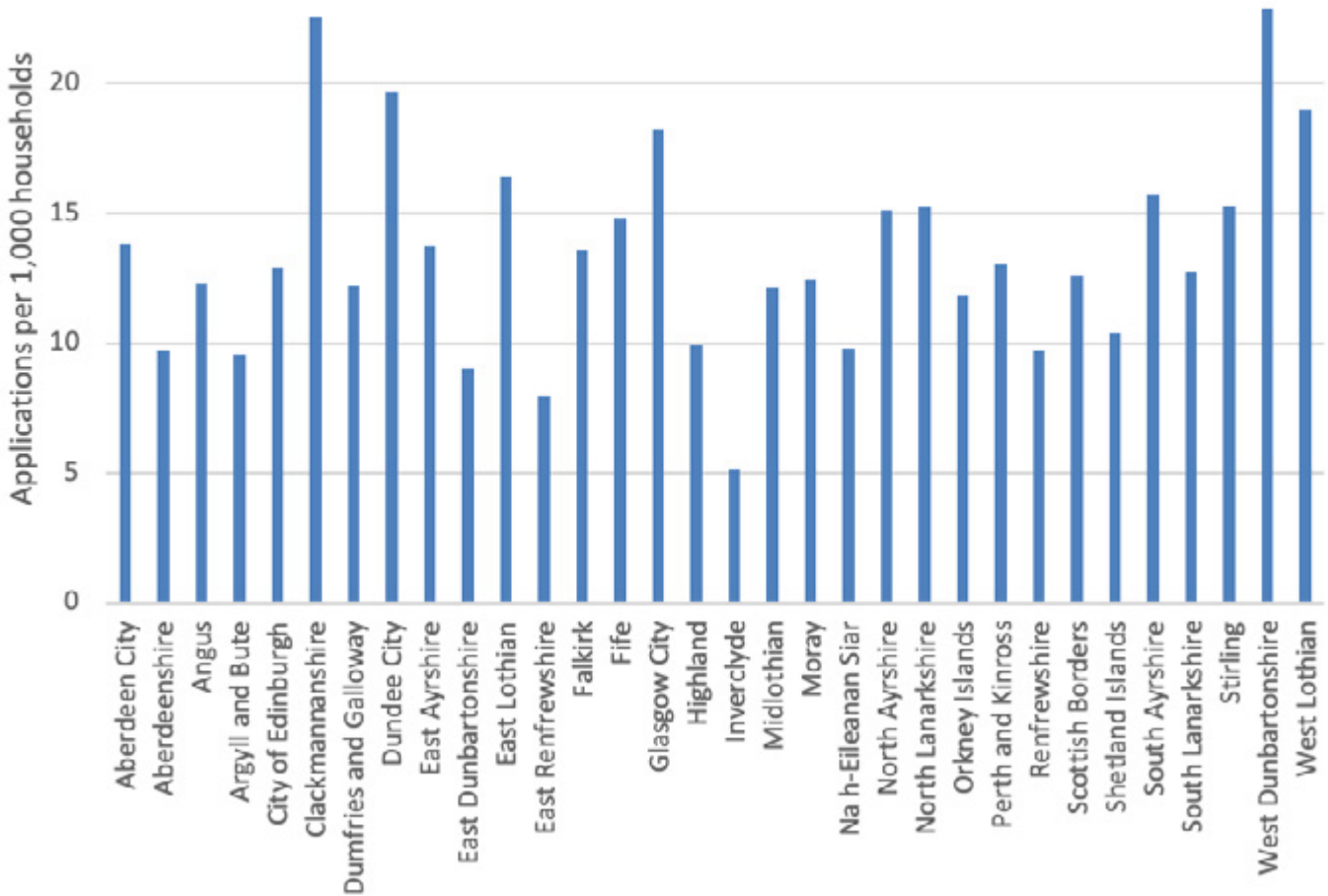
Figure 5.15: Homelessness applications made in Scotland, 2002-02 to 2018-19



Source: Homelessness Statistics, Scottish Government

At the local authority level the number of applications per 1,000 households for 2018-19 is presented in figure 5.16 below. Glasgow and Edinburgh had significantly higher absolute numbers of applications than any other local authority, though when the data is presented to take account of local authority populations, Clackmannanshire and West Dunbartonshire show the highest rates of applications per 1,000 households, with Dundee City, Glasgow City and West Lothian close behind.

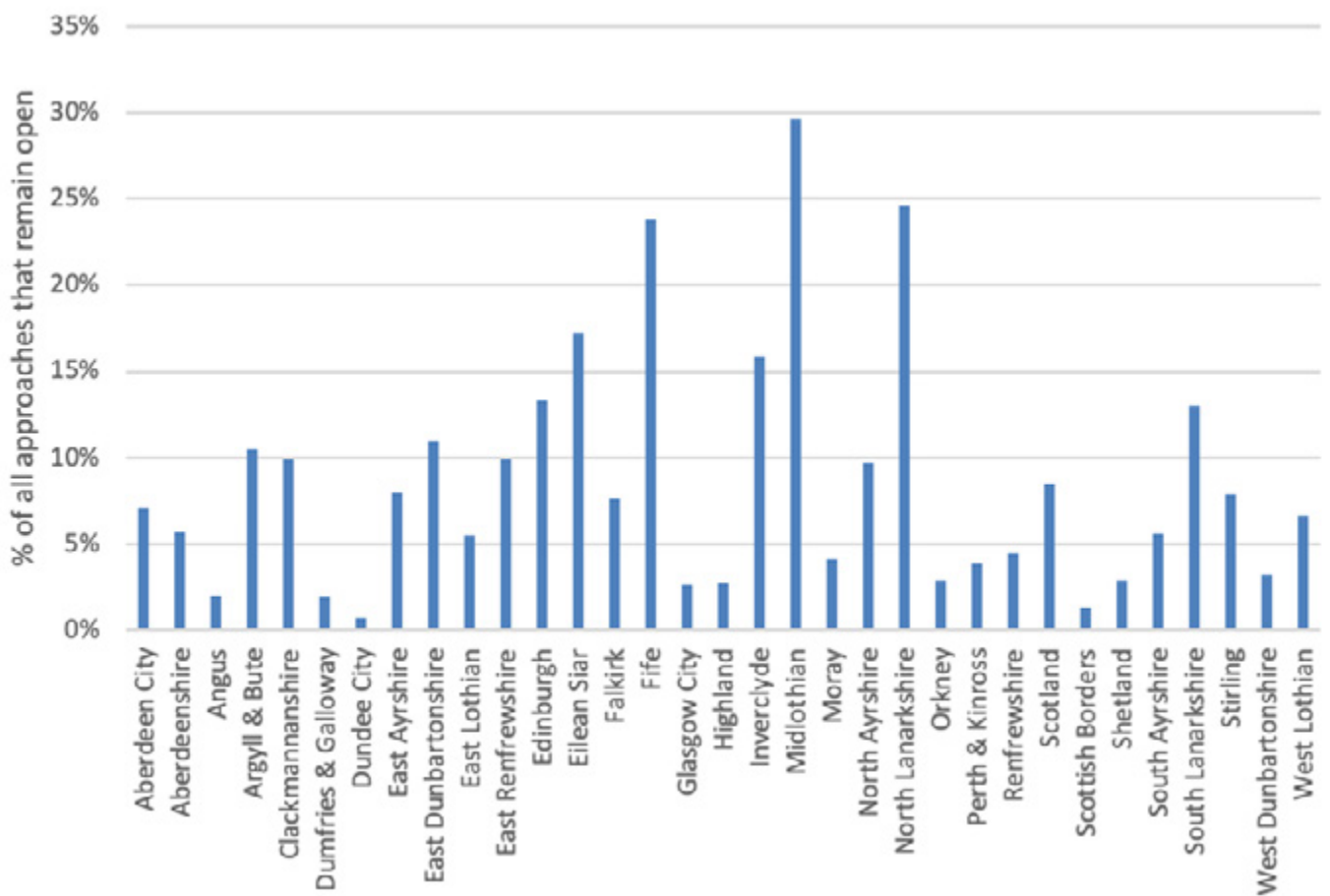
Figure 5.16: Number of homelessness applications per 1,000 households by local authority during 2018-19



Source: Homelessness Statistics, Scottish Government

Attempts to prevent homelessness by intervening to resolve housing issues before they lead to homelessness applications are collated as 'approaches'. Approaches may generate a homelessness application, they may be resolved without generating an application, or contact may be lost with the case subject. Figure 5.17 shows the number of open homelessness approaches as a percentage of all homelessness approaches by local authority from the financial year 2014-15 to the financial year 2017-18. This is done to show the rate at which approaches are dealt with by local authorities, and to thereby ascertain a proxy measure for the relative level of difficulty experienced by councils in dealing with approaches. The three-year cut-off point is used because the number of open homelessness cases is likely to reflect a significant number of instances where communication has been lost with the applicant, or there have been difficulties in processing the application. Using a cut-off of three years is therefore a better representation of the number of open and "live" homelessness applications.

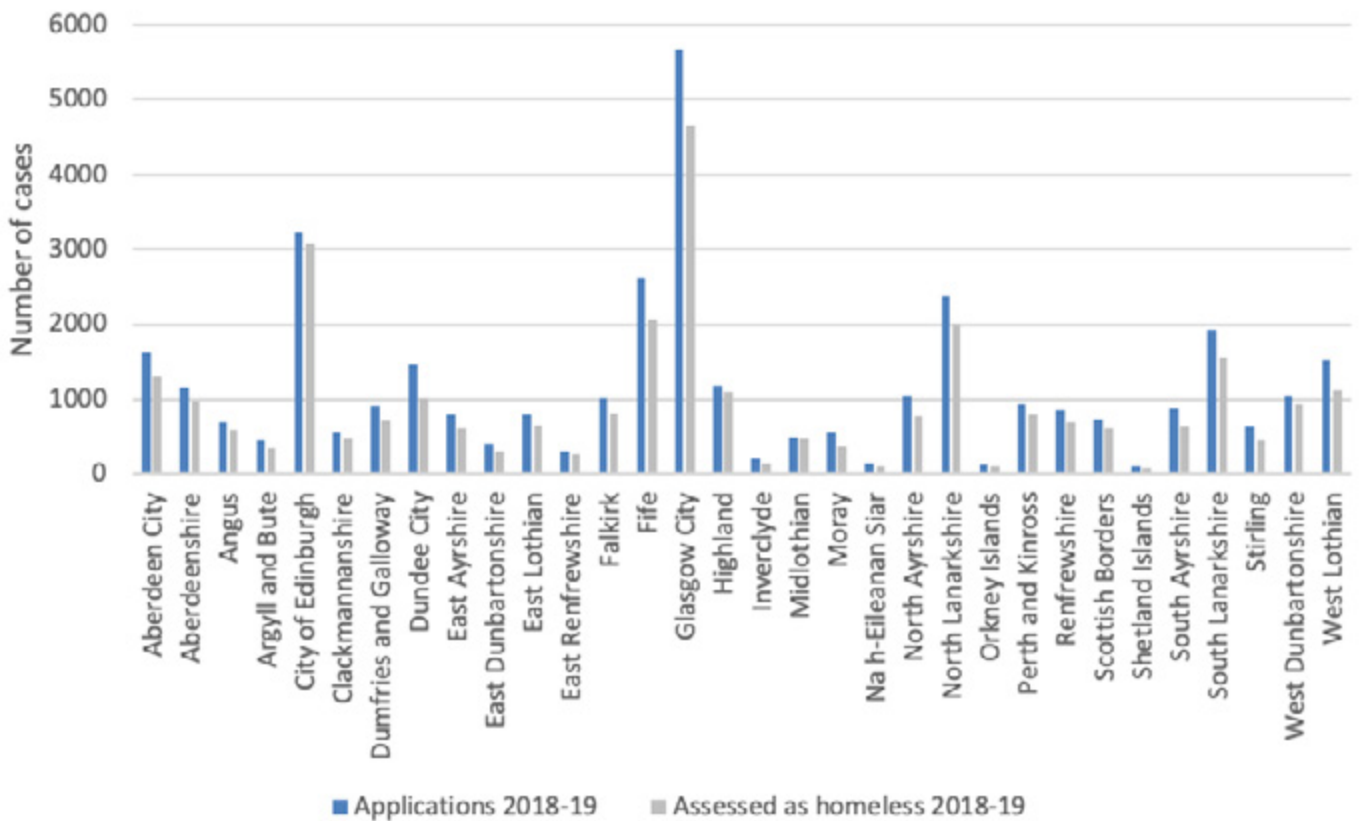
Figure 5.17: Number of open homelessness approaches as a percentage of all approaches by local authority between 1st April 2014 and 31st March 2018



Source: Homelessness Statistics, Scottish Government

The proportion of homelessness applications versus those households actually assessed as homeless varies by local authority and is illustrated for the period 2018-19 in figure 5.18 below. Edinburgh accepted almost as many applications as were made in the year. In contrast, in Glasgow approximately four-in-five homeless applications are assessed as homeless. Whilst it is possible to draw some comparisons between authorities, applications accepted in a calendar year will not all have been presented that same year. Glasgow had the highest number of presentations and acceptances, whilst the Shetland Islands had the least of both.

Figure 5.18: Number of homelessness applications and assessed as homeless in 2018-19 by local authority

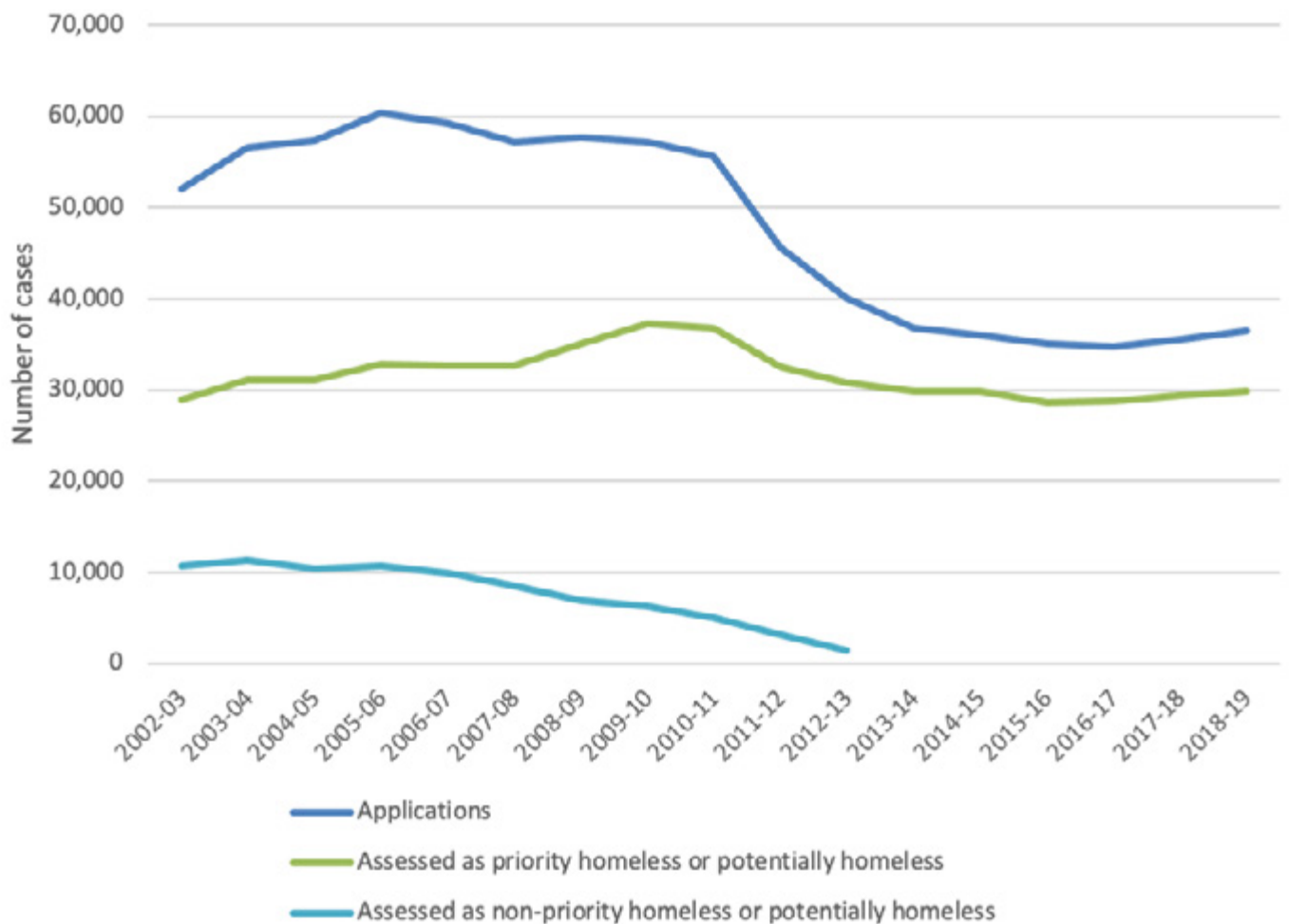


Source: HL1 data, Scottish Government.

Figure 5.19 shows the number of homelessness presentations alongside numbers assessed as priority, or non-priority, need across Scotland since 2002. It shows a downward trend in the number of applications since around 2006-7. It should be noted that applications do not necessarily equate to actual levels of homelessness, or rooflessness. "Hidden homelessness" (e.g. households temporarily staying with relatives or friends, including "sofa-surfers") is a growing concern across the UK since the recession and the onset of welfare reform, and cannot be accounted for within official datasets on homelessness. It is therefore likely that most estimates of homelessness are significant underestimations.

The number assessed as priority homeless was rising until the end of 2010, before it began to follow the downward homeless applications trend. In 2012 the category "non-priority homeless" was removed and there is now no distinction in Scotland between priority and non-priority homeless, a divergence from the policy in England and Wales. This has had the effect of granting the same rights to unintentionally homeless applicants as were previously allowed only to priority homeless applicants.

Figure 5.19: Number of homelessness applications and assessments as homeless (priority and non-priority)

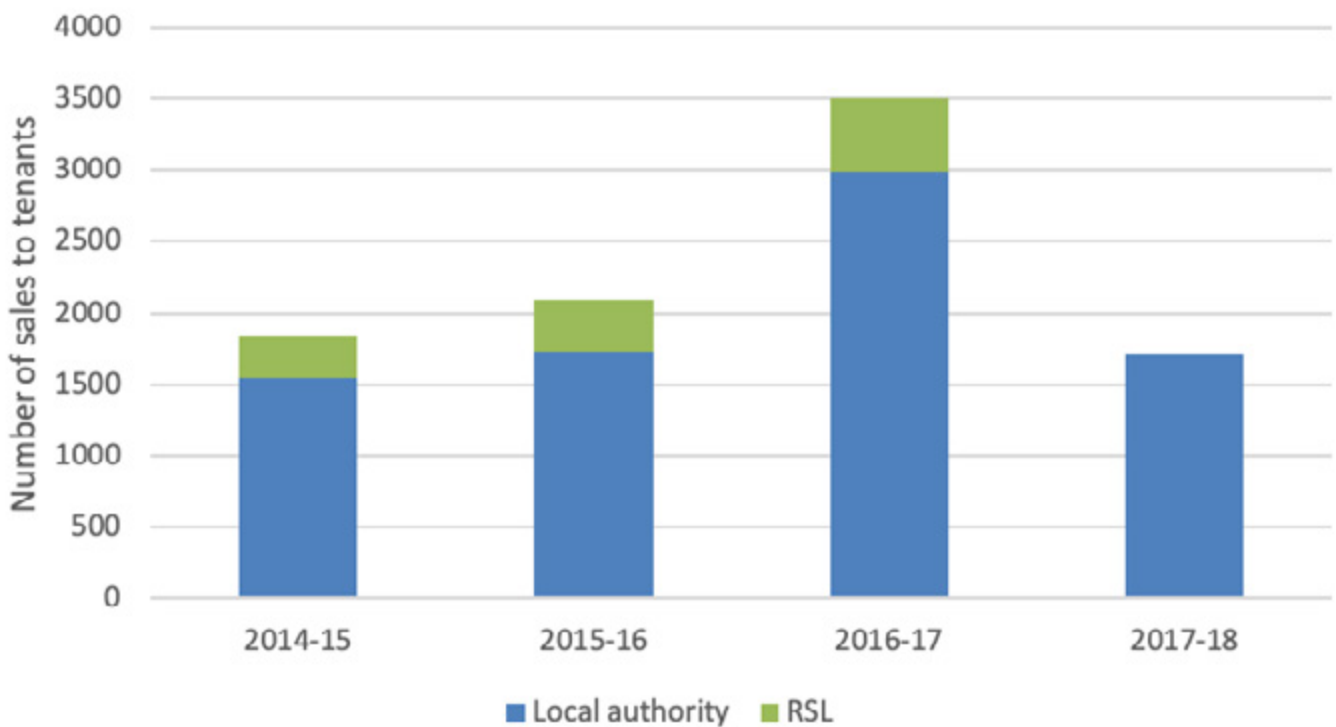


Source: HL1 data, Scottish Government.

Changes to affordable housing stock

Changes to the stock of affordable housing are incurred due to sales and demolitions. Sales of council and some RSL homes were previously undertaken under the Right to Buy legislation, though this ceased to be effective in Scotland on 1st August 2016. All sales taking place after this date are the product of applications for Right to Buy made prior to it. Figure 5.20 below shows sales to tenants under the Right to Buy legislation between 2014-15 and 2017-18. The increase in sales between 2014-15 and 2016-17 followed a steady decline from the most recent peak of 2002-03 until 2014-15. The reason for the recent increase may be that provision to end the scheme was passed in 2014. The majority of Right to Buy sales were of local authority rather than Registered Social Landlord stock. Prior to the Housing (Scotland) Act 2001 Right to Buy sales accounted for more than three times the modernised version of Right to Buy. The total Right to Buy sales in Scotland for each year were less than half of the number of new social sector dwelling completions in each year.

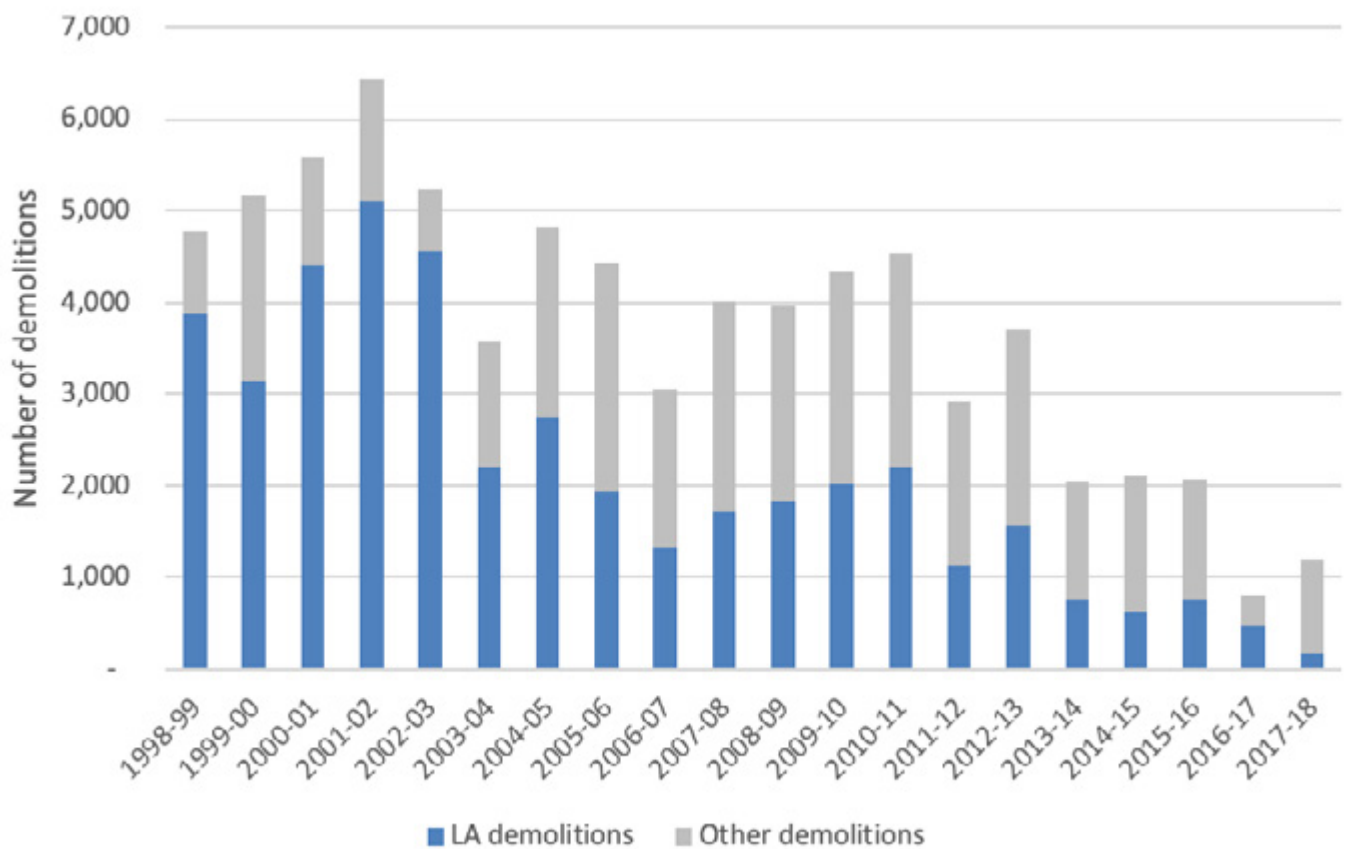
Figure 5.20: Right to Buy sales 2009-13



Source: LA Data: Stock1 returns to the Scottish Government, Communities Analytical Services (Housing Statistics). RSL Data: The Scottish Housing Regulator Registered Social Landlord Annual Performance and Statistical Return 2012-13.

Figure 5.21 below shows demolitions in both the social and private rental stock. The data for the private sector is inaccurate and is likely to under rather than over-represent the number of dwellings demolished each year. The data for the social rental stock is more accurate, but there are some discrepancies within records. 2013-14 represents the first time that demolitions of social rental stock have been less than 1,000 per annum in over 15 years. Since then local authority demolitions have continued at a similarly low level. While overall levels of demolitions are low by historical standards, their impact on local areas can be significant and they thus must be considered alongside the options of rehabilitation and increasing local supply as appropriate.

Figure 5.21: Demolitions of housing stock per annum



Source: Stock4 Returns (NB: demolitions data is taken from local authority returns, the data collated by the Scottish Government contains a warning that data is likely not to be accurate with regard to 'other demolitions' but are considered a minimum estimate of the true level of demolitions. The 'other' category includes RSL demolitions where known.

Summary

In summation, demographic and housing market trends in Scotland point to significant housing pressures, with the potential for a worsening situation in terms of access to affordable housing in the short to medium-term:

- Household projections show that **the number of households in Scotland is growing at a steady rate, as is the Scottish population**, underscoring the need for an increase in housing delivery over the longer-term.
- **House prices show an upward trend** since their previous peak in 2007 and look set to reach that peak again in the near future, based on the Register of Scotland data shown above.
- Market **rents have also increased steadily** and consistently year-on-year, which is perhaps unsurprising given that the social rented sector has contracted and many households are struggling to access home-ownership.
- Overall **house building levels are still well below their peak at 2007**, while social housing completions fell by 44% from 2010 to 2014 to just 3,217, before increasing to 5,103 in 2018 and 2,174 in the first quarter of 2019.
- **Social rented stocks have also been depleted** through demolitions and the Right to Buy.
- Though the number of households assessed as homeless has fallen since a peak in 2010, **homelessness is still a pressing issue in many local authorities**.

An understanding of this context and overall trends informs the assessment of affordable housing need in the subsequent chapter, with several datasets forming component parts of the model. It also feeds into the discussion of the policy and funding implications in chapter seven.

6. Assessment of affordable housing need in Scotland

Introduction

This chapter describes the method and analysis undertaken to provide this assessment of affordable housing need in Scotland. The methodological approach undertaken here is based on a previous assessment that has proved reliable and credible in Scotland (Powell et al., 2016). The basic framework used is a stock-flow model of the type that has been used extensively across the UK.

The modelling of affordable housing need is a data-heavy exercise but is not solely technical. As we have previously discussed HNDAs in Scotland are tested and checked by the CHMA to ensure that they are reliable and a credible evidence base for housing policy. Yet, all models and inputs require judgements that are predicated on normative assessments of what should and should not be included in any housing need assessment. As such, any modelling exercise is not simply calculative or procedural, but subjective and reflects the values of the modellers. However, at the same time, modellers work within constraints that mean the preferred or optimal evidence will not be available, requiring selection of data that best represents their subjective view. Our situation is no different, but in this chapter of the report we seek to make clear our choices and processes to enable the reader to assess the outputs of the model in light of our assumptions. Throughout the exercise we have sought to make balanced and reasonable judgements.

The framework for this research is based on the previous model produced in 2015 by the same research team (see Powell et al, 2015). It therefore applies many of the same assumptions that were made in that model and that has been used as evidence to support housing policy in Scotland since. We have, wherever possible, used the same data sources and approaches as were used in 2015, only updated to reflect the most recent data. There are some minor variations to the model that have been driven by both data limitations and minor methodological improvement – in the text that follows we highlight where this is the case. These changes are relatively modest, and on balance the modelling framework can be considered to replicate the approach used previously. For the most part, results can be directly compared with the previous assessment of affordable housing requirement undertaken in 2015.

As we argued then:

“The model is operationalised at the level of local authority areas, to allow some recognition of variation in local circumstance. Presentational interpretation of the results, however, is at the level of Scotland as a whole and by a classification of authorities. This is to allow the distinction to be made in general terms between different types of local authority area without presenting evidence that may be seen as contradictory to councils’ own HNDAs, nor prejudicial to local policy making that rightly should only be based on an analysis of local data and circumstances. Our basic principle is that a national assessment of housing need cannot simply be the sum of local needs assessments but must proceed using a set of common assumptions. Local assessments can then be interpreted within the context of our assessment of Scotland as a whole.” (Powell et al. 2015, p.20)

This chapter considers the spatial components of analysing affordable housing need in Scotland, drawing on a data-informed classification of local authorities. It then provides a basic overview of the modelling components, before detailed discussion of the specific data and evidence used to underpin the model. We then explore the model outputs according to the classification of local authorities in Scotland and provide the assessment of overall affordable housing need in Scotland.

Sub-Scotland variation

Any assessment of affordable housing need must consider the scale and diversity of market contexts within which it is undertaken. A national assessment is no different and presents particular decisions for the modeller. National statistics present trends at a scale that will often not be representative of smaller scale geographies. Whilst the top-level figures of household growth and historic house price change give a broad indication of trends, local variation in demand and supply is significant. Therefore, any sensible assessment of affordable housing need nationally must consider the similarities and differences between council contexts in terms of affordable housing demand and supply.

Many of these distinctions between national and local trends have been highlighted in chapter four. This chapter highlights how housing policy must be predicated on a localised understanding of the distinct pressures (such as local house price changes) that are at play in the local context (such as the age and type profile of stock) and how these map on to wider trends (such as inflation rates, national housing policy etc.). To facilitate a Scotland-wide assessment whilst reflecting important sub-national variation we have grouped local authorities based on their recent housing trends into different types.

A five-way classification was created for the purpose of grouping the 32 local authorities. In this iteration of the research we undertook a different approach to that undertaken in 2015. It is important to note that the classification of local authorities has no bearing on the way that the model calculations work, and simply affects how the results are grouped and presented.

The 2015 classification used a fourfold typology of above and below median house price growth and median self-containment, revised slightly in light of interviewee insights. The intention then was to reflect groupings of authorities that had similar market pressures – however this was at the cost of having a coherent geography to the groupings. The classification for the current model proceeded with a slightly different approach. It proceeded by using a more advanced statistics approach with a much larger number of input variables, and – as in 2015 – was also informed by expert reflection. A hierarchical cluster analysis of local authorities was undertaken using the following input variables: internal migration ('self-containedness'); new supply as a proportion of stock; median house prices; average weekly income; and measures of urbanisation, remoteness and accessibility taken from the Scottish Urban-Rural Classification. The hierarchical cluster solution was then adjusted to reflect expert insights into both the market and geographic context of the local authorities to provide a parsimonious classification for modelling at the national scale.

The resulting five-way classification is presented in table 6.1 and in figure 6.1. Though only an indicative 'typology' it reflects the broad categories of distinct housing trends and corresponding geography. This classification is used for the presentation of the results of the assessment of affordable housing need.

Table 6.1 Classification of local authorities for the purposes of national affordable housing need assessment

Cluster	Local Authorities	Descriptor
1st	West Lothian, City of Edinburgh, Midlothian, East Lothian, Scottish Borders, Fife	Capital region
2nd	Inverclyde, West Dunbartonshire, Renfrewshire, East Dunbartonshire, Glasgow City, East Renfrewshire, North Ayrshire, South Lanarkshire	West Central
3rd	Moray, Aberdeenshire, Perth and Kinross, Angus, Dundee City, Aberdeen City	Tayside and North East
4th	Shetland Islands, Orkney Islands, Highland, Argyll and Bute, Comhairle nan Eilean Siar, South Ayrshire Dumfries and Galloway	Highlands, Islands and West
5th	Clackmannanshire, Falkirk, North Lanarkshire, Stirling, East Ayrshire	Central

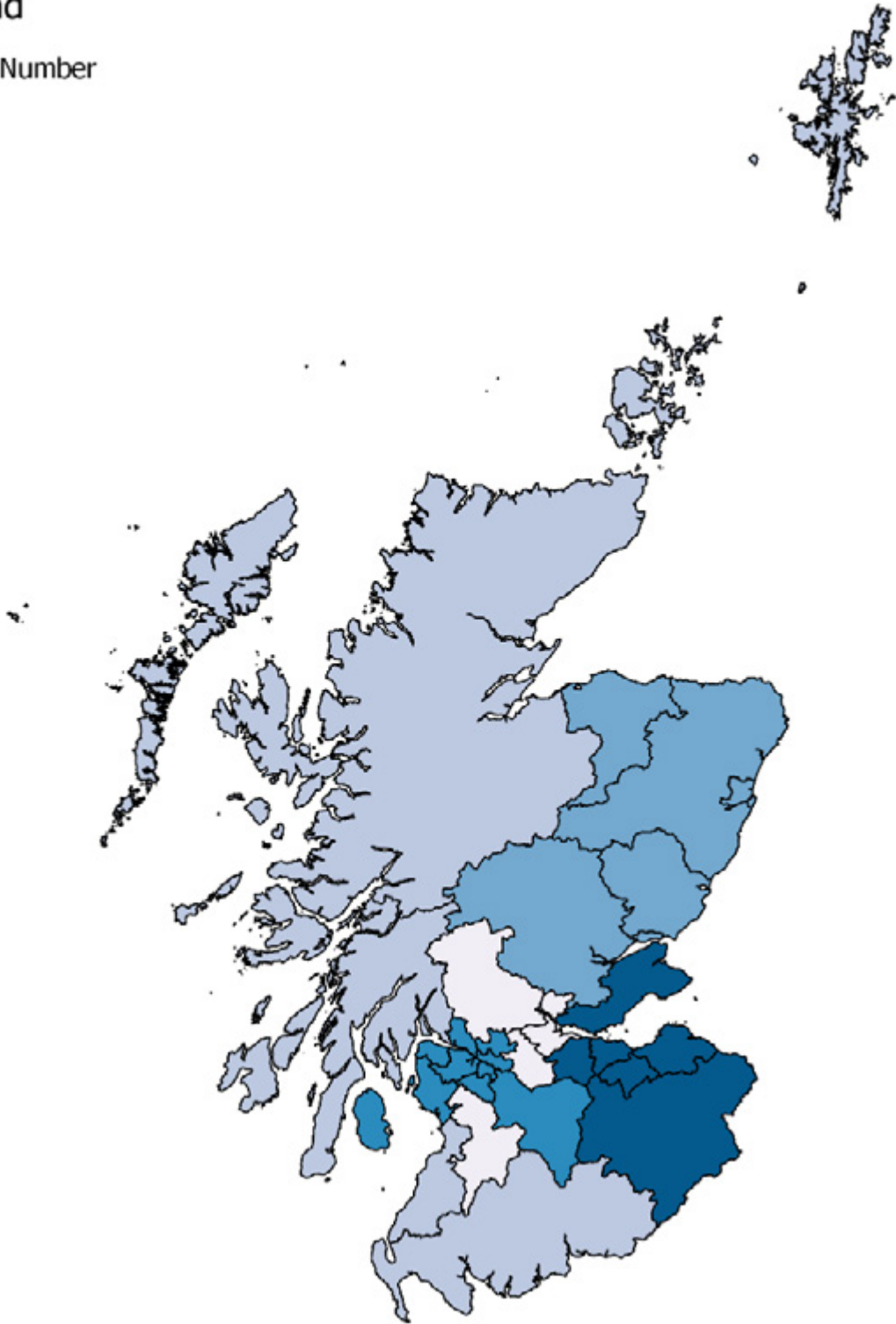
Source: Author's own classification

Figure 6.1 Map of the classification of local authorities for the purposes of national affordable housing need assessment

Legend

Cluster Number

- 1
- 2
- 3
- 4
- 5

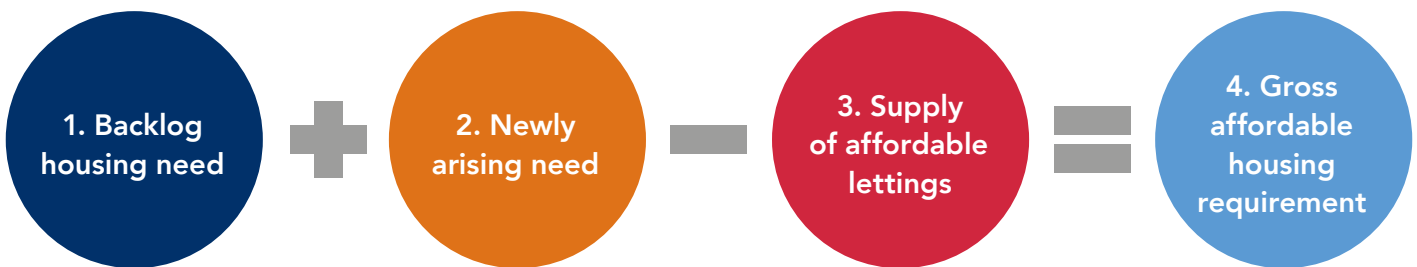


Source: Author's own classification

Basic model architecture

The model estimates the existing housing need that is present in Scotland currently (step one), before adding to that an estimate of future ‘newly arising’ need – both within the existing population and new population (step two). This gives the total number of households from which we can remove the supply of affordable lettings (step three) which could accommodate households in need to give the gross affordable housing requirement (step four). This model is represented in figure 6.2 below. We provide a more detailed flow chart of the model in annex figure A1.

Figure 6.2 Model architecture



As the model is in principle the same as that used in 2015 it is again important for the reader to note that the model produces an estimate of the gross affordable housing requirement. This means that we provide a picture of housing need in the future irrespective of current or planned future policy and provision. As we argued in 2015:

“[The model] is not therefore dependent on assumptions about the forward supply of new affordable housing holding true. Indeed, the net affordable housing supply calculated in step three of the basic model architecture relates only to the ‘natural’ supply brought about through re-lets of affordable housing, and does not include the new supply brought about through construction. It is possible to illustrate the effect of construction at recent past rates against our estimate of gross affordable housing need, as we do later in this section.” (Powell et al., 2015, p.21)

Our standard assumption is that a finite period of time should be allowed to clear the backlog of housing need. When the very small number of authorities that allow a very long period (i.e. greater than 10 years) to remove the backlog are discounted, about 50% of HNDAs use five years and 50% use 10 years as the period to remove the backlog. There are advantages to adopting a shorter timeframe such as five years. First, forecasts of population and household growth, and change in market conditions are more likely to be correct over the short-term than they are in the medium to long-term. Second, expressing backlog housing need as a problem to be dealt with immediately rather than well into the future is more socially just. Finally, it provides a clearer indication of the scale of the programme that might be required within normal parliamentary and spending review cycles and fits within the review period for this research of 2021-2026. For these reasons, **we use five years as our base timeframe for dealing with backlog need.**

Wherever possible, data relate to the 2018-19 financial year, or a period of time leading up to this year – although sometimes exceptions to this principle were necessary owing to data constraints.

Input variables and assumptions

The three stages of the basic model architecture all require decisions over the relevant and most reliable data to use. The CHMA rightly urges local authorities to use the most robust data possible and provides access to much of this data in the form of the HNDA tool. For the HNDA to be assessed as robust and credible, local authorities must be clear about the assumptions that they have made in selecting data. We follow the same approach, and in many instances use the same data sources as the CHMA HNDA tool. In this chapter we discuss our selection of variables, justification for these sources and assumptions that have been designed into our model.

We have taken care at every step of the model to understand the potential impact of the choices made and have sought to explain where these make significant impacts on the model outcomes. Some of the impact of these choices is further exemplified in our sensitivity analysis.

As we have explained previously, no model can arrive at a perfectly 'objective' assessment of need, in the analysis that follows we have sought to make choices that are defensible, reflect best practice in assessing housing need in Scotland and that strikes a balance between generous and restrictive treatments of housing need.

Conceptualisations of housing need

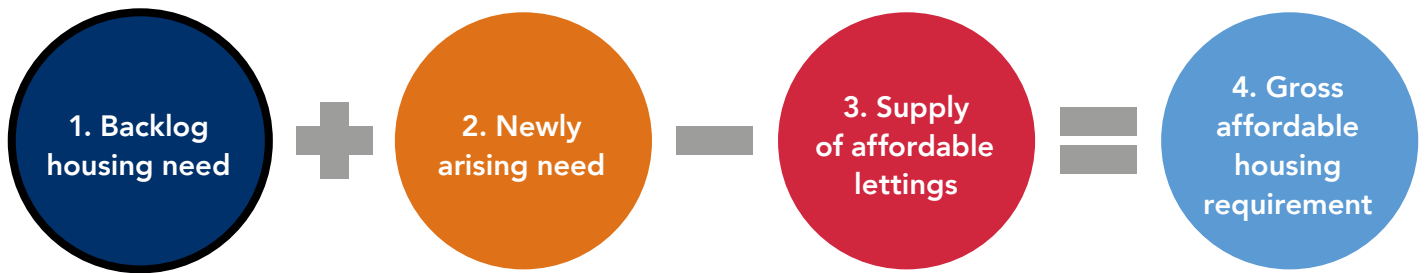
We have used the same theoretical and practical definition of housing need in this research as used in 2015. As we noted then:

"The concept of housing need is an inherently and inescapably normative one. This extends to assumptions about the geographic scale over which needs should be measured and responded to"
(Powell et al., 2015, p.21)

By 'normative' we mean that different people may have different views about what should be considered 'housing need'. Elements of the model where there might be expected to be some variation in these views include:

- The extent to which the circumstances that result in 'concealed households' mean that the concealed household is in need. We take the view that household projections probably under-represent sharing and concealed households and that seriously delayed entry into independent housing or the use of 'sofa surfing' represent housing need that society should strive to meet.
- The type and severity of poor stock condition that might result in occupants being deemed to be in need. Our definition moves beyond simply a de minimis regards to basic decency thresholds and uses the Scottish 'below tolerable standard' and 'disrepair' tests alongside consideration of the extent of overcrowding and suitability to the household's needs (e.g. adaptations for those with a disability).
- The distance that households in need should be expected to move in order to meet those needs. An important principle within our model is that there is a geographical limit over which it is acceptable to expect a household to move because of links to local areas (e.g. family, school, social support networks, transport). We recognise that most local authority areas contain a wide variety of housing markets within them (including low and high priced areas) and that housing needs should be mostly met within the local authority area in which they arise.

Stage One: Estimating the backlog of housing need



The backlog of households in inadequate housing is a core component of any assessment of overall housing need. Yet, determining what constitutes ‘inadequate’ is a normative judgement, which needs policy agreement in order to carry weight. Affordable housing supply has increased since the last iteration of the report, providing thousands of households with high quality affordable housing. Whilst the 2016 pledge to deliver more affordable housing has resulted in increased supply many of the houses have not yet been delivered, but are in a supply pipeline. Consistent measures to estimate the backlog reveals that some households continue to live in housing that is not appropriate.

Our approach to measuring backlog is different to many of the estimates of housing need undertaken by local authorities. We seek to use standardised data from across Scotland which reflects both housing quality and the household’s circumstances to identify whether or not they are in need. As such we do not rely on waiting list data, or other ‘administrative’ estimates of demand pressure of this type, because waiting lists are affected by variations in allocations policies and approaches to dealing with the maintenance of the list by different local authorities.

In the paragraphs that follow we identify how we calculate the backlog of housing need and the data sources used.

Calculating backlog housing need

At its most basic level, our calculation of backlog housing need involves assessing the extent of need that exists by virtue of the **household being inadequately housed** (or, to put another way, in housing that is unfit to meet the needs of the household) and adding to this an element of need that exists because of **households that are homeless**.

It is important to recognise that there is to some extent an overlap between these two components of the backlog and we have taken steps to account for this, as detailed below.

Households inadequately housed

The calculation of households inadequately housed is the same in 2020 as in 2015. Our estimate of backlog housing need that is comprised of households that are housed inadequately is based on the following assumptions:

- **Overcrowding:** A household is in need if it occupies a dwelling that is overcrowded according to the accepted bedroom standard.⁴
- **Quality:** A household is in need if it occupies housing that is below a recognised quality standard (see table 6.2 below).
- **Suitability:** A household is in need if it has particular requirements arising from health/medical reasons and the dwelling it occupies is unsuited to these requirements.

To operationalise these criteria, we used pooled weighted data from the Scottish House Condition Survey (SHCS). In line with SHCS guidance, data from three years (2015, 2016 and 2017) are pooled to provide robust estimates at the local authority level. This is the latest available data. Within the SHCS dataset, weights are applied to ensure that statistics are representative of (and gross to) the population of households in Scotland as a whole. Whilst ensuring that we avoid double counting, we consider a household to be in need if it meets **at least one of the overcrowding, quality, and suitability** criteria. Table 6.2 describes questions/variables from the SHCS that were used.

Table 6.2 SHCS questions and categories used to measure inadequate housing

Criterion	Question	Categories/responses included
Overcrowding	Bedstand – derived variable estimating compliance with the bedroom standard	‘Below standard’
Quality	Qbts – below tolerable standard and/or	
Qdisrep – in state of disrepair	‘Fail’ on either or both	
Suitability	Suitable – property is suitable for needs of households (subset of households only)	‘Not very suitable’ or ‘Not at all suitable’

Source: Scottish House Condition Survey, 2018

⁴ Overcrowding may not technically arise in certain circumstances such as a result of the ageing of a child, or where overcrowding is licensed by the housing authority. Living rooms may also be used to meet needs for the purposes of determining overcrowding from a legal standpoint. We use the bedroom standard, a recognised measure of overcrowding based on age, gender and marital status of occupants, which might be considered a slightly more liberal interpretation

Table 6.3 summarises the number of households that are in each mutually exclusive combination of the categories presented in Table 6.2, together with a total number of households that are in need owing to the unfitness of their property for their household's needs. Using these measures, a total of 125,750 households in Scotland are currently living in unsuitable accommodation, or 5% of all households in Scotland. This is a significant reduction in the number of households in inadequate accommodation since 2015, when the figure was 7%. This calculation is made irrespective of income or current tenure. As we go on to discuss, these characteristics are important in determining whether the household's situation might represent a need for an additional housing unit.

The SHCS has shown a significant decrease in the number of dwellings falling below its standards across Scotland over time. For example, within the SRS between 2010 and 2017 the Scottish Housing Quality Standard (SHQS) failure rate fell from 60% to 37% (Scottish House Condition Survey Team, 2018). In 2012 only 19% of dwellings did not require any repair, whilst by 2017 that had increased to 37%, with a 5% increase between 2015 and 2016 alone (SHCST, 2018).

Table 6.3 Number of households in housing that is unfit for their needs, by category and local authority classification.

Area Type	Category of need							Households in need owing to unfitness of property	
	Below standard only	Over-crowded only	Un-suitable only	Below standard and Over-crowded	Below standard and Un-suitable	Over-crowded and Un-suitable	Below standard, Over-crowded and Un-suitable	No.	% of all households
1st ⁵ Capital region	8,109	16,730	3,663	190	0	0	0	28,691	4.7%
2nd ⁶ West Central	5,546	24,488	8,417	1,124	0	0	0	39,575	5.3%
3rd ⁷ Tayside and North East	9,336	10,530	5,824	144	203	0	0	26,037	5.4%
4th ⁸ Highlands, Islands & West	4,893	3,808	4,227	0	0	0	0	12,929	4.9%
5th ⁹ Central	5,458	9,822	3,237	0	0	0	0	18,517	5.5%
Scotland	33,342	65,373	25,368	1,458	203	0	0	125,744	5.2%

Source: Scottish House Condition Survey, 2018

⁵ West Lothian, City of Edinburgh, Midlothian, East Lothian, Scottish Borders, Fife

⁶ Inverclyde, West Dunbartonshire, Renfrewshire, East Dunbartonshire, Glasgow City, East Renfrewshire, North Ayrshire, South Lanarkshire

⁷ Moray, Aberdeenshire, Perth and Kinross, Angus, Dundee City, Aberdeen City

⁸ Shetland Islands, Orkney Islands, Highland, Argyll and Bute, Comhairle nan Eilean Siar, South Ayrshire Dumfries and Galloway

⁹ Clackmannanshire, Falkirk, North Lanarkshire, Stirling, East Ayrshire

The assumption underpinning including housing conditions in the backlog is that dwellings will not routinely fall into disrepair in the future through limited management of the stock, but that these dwellings represent the current situation, which could be improved. As we argued in 2015:

“The working assumption is that properties do not significantly fall into disrepair; and there are sufficiently resourced capital and revenue programmes to deal with housing conditions in the social rented sector. Where this is not the case the actual level of housing investment required to deal with needs will be higher than that implied by the model. This may be particularly important in parts of Scotland where the legacy of large scale housing schemes and disrepair creates a localised challenge around conditions and/or the need for scheme-based regeneration.” (Powell et al., 2015, p.23)

Evidently for every dwelling that is improved or adapted so that the household’s housing need is met in situ means that one fewer new dwelling will be required. For this reason, we discount households living in the social rented sector in the following analysis, under the assumption that the stock will be managed adequately and repaired where appropriate to meet housing needs in situ or through transfer to an alternative social rented sector dwelling. As such, the primary area of concern here is with stock in the private sector. Whether or not housing resources are directed towards bringing private stock up to an adequate standard and alleviating over-crowding is a matter for policy. In some cases, it will be financially and socially better to resolve a household’s need in situ, but this will not be universally the case. On occasion the most advantageous course of action may involve area-based regeneration or upgrading programmes. It is beyond the scope of this research to determine whether need should be met in situ or through the provision of new affordable high-quality housing or regeneration schemes.

Taking into account needs met within the social rented sector

We argued above that households that are in need in the social rented sector (SRS) are likely to have their housing need met within that sector and that this need does not therefore equate to a requirement for new housing. If a dwelling in this sector can be repaired or the household’s housing met in an alternative SRS dwelling then there is no net requirement arising from that household’s needs. Of course, underpinning this argument is the assumption that SRS landlords have sufficient resources to meet these needs – any policy considerations should ensure that there is sufficient resource to meet these needs to prevent these households from requiring additional accommodation. In contrast, we do not assume that households in the PRS or other private tenures will have their needs met in situ and represent households that will require a net additional affordable housing unit. Again, this is a matter of policy concern as evidenced by the following housing officers’ views:

“...there’s so little capacity to deal with the PRS and our social housing stock is far better managed and maintained than the PRS” (Interview: local authority housing officer)

“Mixed tenure stock means that RSLs are struggling with the rolling out of improvement plans in some cases. There’s a real difficulty in doing that due to private owners and landlords who do not engage and there’s less interest among landlords in maintenance work...so, we’re using affordable housing supply money allowing RSLs to buy back properties, but that’s mainly an issue for tenements”.

(Interview: local authority housing officer)

There are some criticisms of the Scottish House Condition Survey as a data source at the local authority level. These criticisms related to perceptions that the survey is based on a relatively small sample size and that it is therefore difficult to generate localised insights and implications. It is not possible to conclude from these criticisms whether the data in later years is less reliable than it initially was, but highlights the significance of robust and credible evidence gathering across the country to provide both locally and nationally reliable insights. This reflects a common call for better quality data to inform HNDAs. Local authorities may be able to use localised insights to produce more detailed and reliable information at the local housing market scale.

“There’s an expectation that you’ll use the Scottish House Condition Survey to inform recommendations about housing stock, but that’s quite a weak source of data at a local authority level, it’s fairly wide, so in terms of the condition of overall stock and fuel poverty, we’re operating in the dark there.” (Interview: local authority housing officer)

“Condition of the property isn’t taken into account and the national data is based on such a small sample that actually it’s not reflective of the position. Having a greater Scottish House Condition Survey sample size for each authority would be welcomed.” (Interview: local authority housing officer)

Accounting for bed-size mismatches in the social rented sector

Whilst it is assumed that households inadequately housed but who are in the SRS may have their needs met in situ (as discussed above), it would be clearly unrealistic to expect that there would be a perfect (one-to-one) match between households’ needs and properties becoming available for let. Of most significance is a likely mismatch between the size profile of the properties that become available and the size profile of the households needing housing. To this could be added an expectation of further mismatches that arise in the normal course of dealing with ‘voids’ and letting properties.

In order to estimate the number of dwellings that are not available due to a mismatch between supply and need we use the average length of time that a property is void between lettings within each local authority area. This length of time is then expressed as a proportion of a calendar year (365 days) to provide an estimated proportion of available lets that may not be able to immediately satisfy needs. Long void times can arise for a variety of reasons including the unsuitability of the property for local households in need as well as for property management (such as maintenance and repair works). Nevertheless, the average void period gives a suitable and realistic proxy for the proportion of dwellings that are not available at any period of time for households on the waiting list.

Using ARC data for 2018/19 we observe that approximately 9% of the notionally available supply of affordable housing re-lets in any given year is not available and should be discounted (see column C of table 6.4). In 2015 11% of the stock was considered to be notionally unavailable for the mismatch calculation, thus the ARC data presents an increase in the efficiency in the SRS between 2015 and 2020. The method and data sources for calculating the mismatch are the same in both 2015 and 2020.

Table 6.4 Calculation of net backlog need owing to unfitness of property for household needs (non-Social Rented Sector)

Area Type	A	B	C	D	E	F
	Gross households in need	Of which, are in the Social Rented Sector	Mismatch adjustment based on average re-let times (%) (see text)	Households in need but not in SRS (after mismatch adjustment)	% of households unable to afford	Net backlog need owing to unfitness of property
	Table 5.3	Authors' calculations based on SHCS dataset	Author's calculations based on ARC dataset (2018-19)	$A - B \times (100 - C)$	SHCS affordability proxy (see text)	$D \times E$
1 Capital region	28,691	6,632	8.9%	22,648	27.8%	6,298
2 West Central	39,575	15,966	6.9%	24,713	35.5%	8,765
3 Tayside and North East	26,037	9,377	11.8%	17,771	30.1%	5,383
4 Highlands, Islands & West	12,929	4,302	8.5%	8,991	46.4%	4,167
5 Central	18,517	6,648	8.3%	12,424	35.9%	4,454
Scotland	125,750	42,925	8.7%	86,547	33.6%	29,068

Source: Authors' own calculations. Note percentages have been rounded in the table for readability.

The remaining 'stock' of inadequately housed households is then subject to an affordability test. Given the limitations of relying on income data alone without reference to wider resources and household circumstances, we have again used an affordability proxy. The SHCS dataset contains a variable that indicates whether a household is considered to be in fuel poverty, which we use as a proxy for a constrained household financial situation. In 2015 we used an indicator in the SHCS (EcoBen), which indicated whether a household was eligible for benefits from the UK Government's Energy Company Obligation Scheme. The EcoBen indicator has been discontinued, so in this iteration of the model we have used a broadly consistent indicator; fuel poverty. The rate of eligibility is calculated only for those households in need according to the housing inadequacy assessment described above. On average, across Scotland, this suggests that 33% of households in need may be unable to afford to meet their housing needs in the private sector (owner-occupied or PRS). This is a small reduction in the percentage of households that cannot afford suitable housing in the private sector, down from 35% in 2015.

Column E of table 6.4 shows how this varies by local authority classification type. Column F of the same table shows the effect of applying this affordability proxy to the remainder of households in need. **This suggests that there is a total net backlog of 29,068 households in Scotland that are in properties unsuited to their needs and who cannot afford a market property.**

There has been a reduction in the number of households in the private sector in inadequate housing by around 6,500 since our last assessment, down from 35,500 households in 2015 to approximately 29,000. This reduction in the net backlog of households in unsuitable housing and unable to afford a market property can be attributed to the major reduction of households in unsuitable housing according to the SHCS, the more modest improvement in efficiency of the SRS in lettings and the small reduction in the proportion of households unable to afford market housing. Whilst the greatest impact is as a result from the reduction in gross households in need (A) the compound effect of these changes is a sizeable reduction in the net backlog owing to unfitness of property (F).

Homeless households backlog

The next step in the model is to estimate the backlog of households that are homeless. Care needs to be taken to avoid any potential double counting with households that are currently concealed within another overcrowded household (these will have already been factored to a large extent into the estimate of housing need presented in the previous section). We proceed by looking at a number of different data sources to make a reasoned judgement as to which most accurately reflects the number of homeless households that need to be carried forward in our model. The data sources are two 'policy' measures designed to estimate homelessness 'pressures' in different local authority areas (HaTAP and HoTOC – see below), and Scottish Government's statistics on open homelessness cases.

In 2015 the CHMA HNDA tool (v2.01) used a measure of homelessness called Homelessness and Temporary Accommodation Pressure (HaTAP). HaTAP was an indicator of the amount of housing needed to prevent an increase in the level of homelessness in each local authority and reduce reliance on temporary accommodation over a five-year period. We previously used this as a comparative measure of homeless housing need, but this has now been replaced in the HNDA tool by a new measure, HoTOC, which counts "homeless household(s) in temporary accommodation and households that are both overcrowded and concealed." (Scottish Government, 2018. emphasis in original). HoTOC explicitly seeks to account for concealed overcrowded households and therefore includes part of the element of double-counting we seek to avoid.

Table 6.5 summarises the HoTOC estimates for Scotland and for the five areas and shows these estimates alongside the number of open homelessness cases at 31 March 2019. Although these are broadly consistent, the number of homeless cases is marginally higher than the HoTOC estimate because homeless presentations encompass a broader range of circumstances than those estimated within HoTOC. That said, HoTOC explicitly attempts to deal both with temporary accommodation and concealed overcrowding. We looked at the change since 2015 in both open homeless cases and between HaTAP and HoTOC. Whilst the open homelessness cases were broadly stable (increasing from 20,340 to 20,517), the HoTOC measure increased a little more in comparison to HaTAP, from 17,350 (HaTAP) to 18,940 (HoTOC). Given the relative stability in the number of open homelessness cases, this suggests that the broader definition of HoTOC over HaTAP predominantly yielded this increase. At the same time, we note that in general the constituent parts of HoTOC are driven in the majority by homelessness household within temporary accommodation (around 11,000 households in Scotland).

It is important to note that there are, in addition, a large number of homeless households that are not housed within temporary accommodation and that are not currently concealed within other households. A measure of the backlog of homelessness must also account for these households, which is why we also look at open homeless cases. Of course, this measure is also not without problems. First, open cases may be very old. Authorities may have lost contact with applicants, or indeed households may have gone on to resolve their housing situation independently in the intervening period. An examination of the distribution of open homeless cases by their age suggests that there is a long but marginal tail after three years. Pragmatically, we chose three years as a cut-off; any open cases which are older than three years are discounted from the analysis. A second potential problem is that the estimates of households in need because of overcrowding as revealed by the Scottish House Condition Survey may include concealed homeless households who have also presented as homeless to the local authority. However, it can also be assumed that such circumstances would be unlikely to be reported within a household survey and on balance we conclude that any potential double-counting from this source is likely to be marginal.

Taking all of the above into consideration we decided that using the open homelessness cases measure, as we did in 2015, remains a defensible approach to estimating the backlog of homelessness, and that any risk of double-counting with already-identified housing need is minimal. It is also worth noting that we assume that all homeless households are unable to satisfy their needs in the open market and, as such, we do not apply an affordability filter to this element of the estimate of backlog housing need.

Table 6.5 HoTOC and open homelessness cases as at 31st March 2019

Area type	A: HoTOC estimates (CHMA Tool v3.3)	B: Open homelessness cases aged 3 years or less (at 31 March 2019)
1 Capital region	4820	7,360
2 West Central	6980	6,381
3 Tayside and North East	2830	2,893
4 Highlands, Islands and West	1800	1,706
5 Central	2510	2,177
Scotland	18940	20,517

Source: CHMA HNDA Tool v3.3 and Scottish Government, 2019

Total backlog need

The total backlog need is computed as the sum of the households inadequately housed and the estimated homelessness backlog. This is summarised in table 6.6 below. For Scotland, this gives a total backlog need of 49,585 affordable units. Assuming that policy will aim to deal with the backlog over a period of five years, this yields an annual requirement to deal with total backlog need of 9,917 dwellings per annum. This is 1,250 dwellings per annum lower than that required for the backlog in 2015.

Table 6.6 Estimate of the total backlog need

Area type	A	B	C	D
	Backlog of needs arising from inadequate housing	Backlog of homelessness	Total backlog need	Annual requirement to deal with backlog over 5 years
	Table 5.3 column F	Table 5.4 column B	A+B	C÷5
1 Capital region	6,298	7,360	13,658	2,732
2 West Central	8,765	6,381	15,146	3,029
3 Tayside and North East	5,383	2,893	8,276	1,655
4 Highlands, Islands and West	4,167	1,706	5,873	1,175
5 Central	4,454	2,177	6,631	1,326
Scotland	29,068	20,517	49,585	9,917

Source: Authors' own calculations

Stage Two: Estimating newly arising need



The second step for the overall model architecture is aimed at estimating the levels of newly arising need each year. This arises from two principle sources; the formation of new households that do not currently exist, and households that become homeless.

- **New household formation:** the number of net additional households that there can be expected to be in an area as a result of demographic and economic trends, including (net) in-migration. Of these additional households, a proportion will not be able to afford to purchase or rent a home in the open market.
- **Homelessness:** households may ‘fall into’ homelessness for a range of reasons, sometimes very complex. Such households may or may not already occupy a home (being threatened with homelessness is in the eyes of the system the same thing as being homeless). To some extent, households that are concealed within other households constitute homeless households (although see our earlier discussion of different normative positions on this matter). For these reasons it is necessary to consider the likely additional flow of homeless households in addition to new household formation.

It is important to stress at this point that the goal of the model is to estimate the gross needs that exist for new housing – that is, how many additional affordable properties will be required to meet needs – before considering how supply is meeting those needs. This presents a conceptual challenge related to how the estimates of newly arising need are calculated. Estimates of new household formation, which are presented below in this section, are a net figure. When a SRS dwelling is made available to meet needs because the previous occupant died or moved to an institutional residential setting, the death/move to institution that gave rise to a vacancy within the SRS has already been accounted for on the demand side in the household projections. Simply put, projected deaths and moves to care are part of the household projection methodology and so the net household formation estimates already account for these. We deal with this later when we consider social housing supply (in table 6.13) by making an adjustment that reduces the effective number of social re-lets that are available to new tenants.

New household formation: household projections and scenario descriptions

The contribution of new households to newly arising needs rests on two factors: first, the projection of new households and, second, an estimate of what proportion of these new households might be unable to afford to buy or rent privately.

National Records of Scotland (NRS) produces population and household projections for each local authority, which underpins most HNDAs and the CHMA tool. These projections are updated usually every two years, with census years acting as calibration moments to reassess their accuracy. Eight years on from the last census, we are almost at the furthest point away from a formal count of the population to assess the accuracy of the projections, however for this project we have used the 2016 Sub-National Population Projections as the 2018-based data were not yet available. This represents a very minor departure from the 2015 study, with a bigger gap between the year of projection and the study. The NRS produces three household projections: a principal projection (largely a continuation of existing trends) and two variants; a high in-migration projection and a low in-migration projection. This provides an opportunity to consider our model outputs on the basis of each of these three scenarios.

In constructing the scenarios, it is important to note that, unlike the backlog of housing need, the estimate of newly arising need is sensitive to key demographic and economic scenarios going forward. Therefore, we need to include both household projections and economic indicators, in this instance we use house price and rental inflation as key determinants of affordability and therefore representing strong market growth and weaker market growth respectively. Combining these two key data inputs enables four alternative scenarios to be considered (see table 6.7).

Table 6.7 Description of scenarios

Scenario number	Scenario name	Input parameters			Likelihood of scenario
		Household projection	House price increases	Rent increases	
0	Core model	2016 Principal projection	Scottish Government LBTT forecast	Scottish Government LBTT forecast	High
1	High migration, strong market recovery	2016 High Migration projection	Strong growth	Strong growth	Medium
2	High migration, gradual market decline	2016 High Migration projection	Weak growth	Weak growth	Low
3	Low migration, strong market recovery	2016 Low migration projection	Strong growth	Strong growth	Low
4	Low migration, gradual market decline	2016 Low migration projection	Weak growth	Weak growth	Medium

Source: Authors' own, Scottish Government LBTT forecast, National Records of Scotland, 2018

As with the report in 2015, the principal household projections are used as the core model for this assessment of housing need. Between 2019 and 2024 the principal projection sees an increase of approximately 76,600 households in Scotland. This equates to a net increase of just over 15,300 households per annum over the period, an increase of 0.6% per annum (see table 6.8). It is important to note that the estimates are net additional households, which is the result of processes of both gross household formation and dissolution, including death and out-migration. This is a much lower rate of increase than projected in 2012 for the period 2014-2019 covered in the last report, which had an annual increase of 18,704. This much lower household projection has a significant impact on the overall annual housing requirement.

Table 6.8 Summary of 2016 'principal' household projections by local authority classification

Area type	A: Household projection 2019	B: Household projection 2024	C: 2019-2024: net increase per annum	D: Average % net increase per annum
1 Capital region	628,612	656,129	5,503	0.9%
2 West Central	761,007	782,185	4,236	0.6%
3 Tayside and North East	500,714	514,966	2,850	0.6%
4 Highlands, Islands and West	265,704	269,883	836	0.3%
5 Central	345,173	354,621	1,890	0.6%
Scotland	2,501,210	2,577,784	15,315	0.6%

Source: National Records of Scotland, 2018

Sitting below the national picture there is a large variation in the distribution of projected household growth. This is evident at the sub-national classification of local authorities used in this research, revealing variations of 0.3% to 0.9% per annum increases between the different classifications of local authorities (see table 6.8).

The high and low variants of the NRS household projection make a large difference to the net increase in households between 2019 and 2024, making a difference of some 4,000 households above and below the principal projection respectively (see table 6.9). The low migration projection is less than half of the core projection from the 2015 report, whilst the highest migration scenario projection for 2021-26 is less than the core projection from 2015.

Table 6.9 Household projection based variant estimates of net new households 2021-2026

Area type	Net increase in households per annum		
	A: Core model (Principal projection)	B: High migration scenarios (1 and 2)	C: Low migration scenarios (3 and 4)
1 Capital region	5,503	6,751	4,250
2 West Central	4,236	5,366	3,121
3 Tayside and North East	2,850	3,768	1,941
4 Highlands, Islands and West	836	1,110	558
5 Central	1,890	2,190	1,564
Scotland	15,315	19,185	11,433

Source: Authors' own calculations based on NRS household projections.

In order to calculate the overall number of households that require affordable housing it is necessary to estimate the proportion of newly arising households that will not be able to meet their housing requirements in the private market. We replicate the method here used in the 2015 report, in which the CHMA Tool is used to estimate the proportion of newly arising households unable to afford to buy or rent privately (without government support) and then apply this to the average annual increase in households between 2019 and 2024.

For the CHMA Tool the proportion is calculated for each local authority area based on a set of standard assumptions that are applied to a comparison of the distributions of market house prices and market rents with the distribution of income. In the version of the tool used in this report (v3.0) the affordability estimates are based on the Scottish Government Small Area Income Estimates produced by Heriot-Watt and the David Simonds consultancy (2014 estimates). In these estimates household incomes is modelled to increase by 3.5% in nominal terms, i.e. above existing inflation targets, and no change in the income distribution is projected. However, in the core model nominal house price growth is modelled to be 4% per annum (i.e. 0.5% per annum greater than income growth).

Table 6.10 shows this data extracted from the CHMA HNDA Tool as a percentage of households unable to afford market housing by area type. Overall for Scotland 62% of new households cannot afford market housing. This is a large increase from 2015 when the figure was 46%. Whilst the CHMA tool has been revised since 2015 we understand that the underlying methodology and calculations that provide the estimated tenure split of future needs remain unaltered, whilst clearly the input data (with regards to house prices, rents and household incomes) are updated to reflect the more recent position. We use the same assumptions for our core model as in 2015 (principal household projection, no real terms growth income scenario, no change in income distribution, Scottish Fiscal Commission forecast price and rent growth). That the proportion of new households that are expected to be unable to afford is significantly higher than the affordability filter applied to existing households in need (table 6.4) reflects the lower level of resources that new households tend to have on average compared to existing households.

Table 6.10 Proportion of new households unable to afford market housing and estimate of new need arising from household growth

Area type	Percentage of households unable to afford to buy or rent privately	Annual new need arising from household growth
1 Capital region	66%	3,621
2 West Central	66%	2,791
3 Tayside and North East	59%	1,676
4 Highlands, Islands and West	60%	503
5 Central	54%	1,025
Scotland	63%	9,616

Source: CHMA HNDA Tool

The newly arising housing need that is estimated to result from demographic processes is the product of the relevant household projection-based estimate of annual household growth (from table 6.9) and the relevant proportion of new households unable to afford market housing (from table 6.10). This calculation is summarised in table 6.11 for the model.

At 8,578 household growth requiring affordable housing per annum this is a small decrease from the 2015 model. The smaller household growth in 2021-26 than in 2016-2020 is mostly offset by the increase in the proportion of households unable to afford to buy or rent privately.

Additional newly arising need from homelessness

Newly arising need from household growth does not account for households becoming homeless in national household projections. The newly arising need from homelessness therefore needs to be estimated and added to the newly arising household population growth. This problem has been reported previously by Bramley et al. (2006) and in the last iteration of the research (Powell et al., 2016) with regards to the possibility of double-counting some households from the household projections.

“Households that would otherwise form, but may be prevented from doing so by a shortage of affordable housing, may be under-represented by demographic forecasts. Since such forecasts tend to extrapolate past trends, there is an inbuilt assumption that households are adequately housed. Although the backlog calculation is designed to account for that component of inadequate housing that already exists, if market conditions going forward are such that an increasing number of households will face housing difficulties, then demographic forecasts will progressively under-represent these households that are prevented from forming. Welfare reform is also a key consideration here in the short-term.” (Powell et al., 2016, p. 29)

In this research we use a proxy for the proportion of homeless acceptances that lead to a social letting. We use the same approach as in 2015, in which the policy judgement underpinning the HaTAP model suggests that 60% of homeless acceptances lead to a social letting. We therefore deflate the level of assessments of homelessness in 2017-18 to 60% to estimate the contribution of homelessness to newly arising need in each local authority. The impact of this is laid out in table 6.11, which sees 29,000 homelessness assessments leading to an estimated 17,275 additional households in need arising from homelessness. This represents a small decrease from the 17,822 estimated in 2015.

Table 6.11 Proportion of homeless households assumed flow of new need

Area type	Households assessed as homeless 2017-18	Percentage of homeless assumed new	Assumed flow of new need from homelessness
1 Capital region	7,881	60%	4,729
2 West Central	9,035	60%	5,421
3 Tayside and North East	5,518	60%	3,311
4 Highlands, Islands and West	2,347	60%	1,408
5 Central	4,011	60%	2,407
Scotland	28,792	60%	17,275

Source: Scottish Government HL1 statistics, authors' calculation

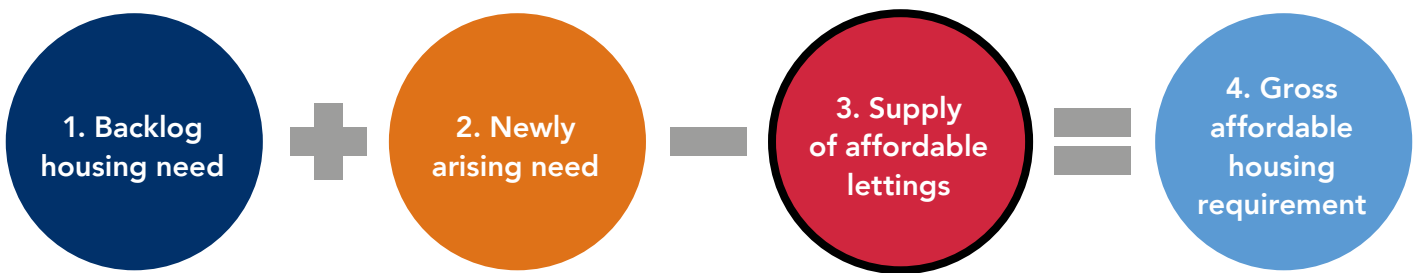
The newly arising need from household growth is then added to the assumed flow of new need arising from homelessness to estimate newly arising need (table 6.12). The total newly arising need in Scotland is therefore estimated to be nearly 27,000 households per annum for the period 2021-2026. This is a small increase on the 26,461 estimated in 2015, accounted for primarily by the increased proportion of new households unable to afford to buy or rent privately.

Table 6.12 Estimate of newly arising need

Area type	Annual new need arising from household growth	Assumed flow of new need from homelessness	Estimate of newly arising need
1 Capital region	3,621	4,729	8,350
2 West Central	2,791	5,421	8,212
3 Tayside and North East	1,676	3,311	4,987
4 Highlands, Islands and West	503	1,408	1,911
5 Central	1,025	2,407	3,432
Scotland	9,616	17,275	26,891

Source: Authors' own calculations

Step Three: Supply of affordable housing lettings



The third step in calculating gross affordable housing requirement is to estimate the supply of future affordable housing that is part of the existing stock. This does not include an assessment of agreed or planned provision or housing already under construction, nor does the model attempt to project forward existing housing construction trends. In this sense our model is an assessment of the gross affordable housing requirement.

As such, our approach relates to the ability of the existing affordable housing stock to meet needs, primarily through existing SRS properties being made available for new tenants, i.e. net re-lets. Net re-lets occur at the rate at which the existing affordable stock turns over (i.e. manifests itself as a net flow of re-lets available to meet needs). If turnover decreases (for reasons as diverse as, for example, increased longevity, increased population stability, tenants moving less frequently or there being fewer evictions) this will result in a smaller future supply being available to meet both backlog and arising needs.

This argument is also predicated on the basis that there is no systematic reduction in the SRS. Should selective demolitions or the regeneration of stock require the removal of some units from the SRS, then this would impact on the future ability of the SRS to meet historic trends in re-lets. As such, any demolition or removal of units from the SRS stock will require a commensurate increase in the gross affordable housing requirement (subject to localised trends). Thus, the gross affordable housing requirement does not reflect demolitions that are currently scheduled or will take place.

In this regard the model's outputs are consistent with our aim of assessing the overall need for affordable housing in Scotland irrespective of current housing supply policies and programmes. It is within the context of this assessment of overall need that discussions may be had on the best way of meeting these needs.

Estimating total SRS lets

The precise calculations we have used to estimate lets in the SRS represents the biggest departure from the method undertaken in 2015. In 2015 we undertook a modelling exercise that used SCORE data¹⁰ to provide evidence of the previous tenure of households moving into the SRS. This was used to discount households that moved from the SRS to another social rented tenancy (i.e. stayed within the SRS) as no new vacancy would arise in this context. Due to the discontinuation of SCORE we have had to take a conceptually different approach to modelling estimated total SRS lets. The approach adopted is a significant simplification in the model in comparison to 2015 although we have taken great care to test the results against the previous findings to ensure consistency.

Regarding the explanation of our method that follows it is worth stressing that the model is based on general needs housing and does not include supported housing lets. This provides consistency with the approach used in 2015 and is conceptually simplest. It also recognises that the survey data used to estimate does not explicitly set out whether respondents are in supported housing settings, but that we assume that the nature of the support and/or care package is likely to mean that any supported households' housing needs are being or have been addressed. We further assume that homeless households in supported housing that is helping them transition to independent housing will be captured as part of our estimate of future newly-arising homelessness. On balance, therefore, we did not consider it appropriate to offset supported housing lets against our need estimate.

ARC provides data for each SRS provider on the number of lets as well as disaggregated counts of: the number of lets to existing tenants; the number of lets to housing list applicants; the number of mutual exchanges; the number of lets from other sources; and the number of lets to homeless applicants. However, ARC does not provide this data spatially or with a geographic reference. This means that to link the data to appropriate units for our analysis (i.e. local authorities) we need to make an assumption about the distribution of these lets.

The stock of each SRS provider in each local authority is provided by the housing regulator. To ascertain the number of lets and previous context of the household (e.g. homeless, new lets) we assume that each provider's lettings are equally distributed across their stock and that there is a uniform distribution of previous tenures. This means that the analysis which follows regarding the supply of re-lets is accurate to the extent that housing associations have relatively even re-letting of their stock geographically. For associations with the majority of their stock in a single local authority or distributed amongst similar types of authority this assumption is likely to hold true. However, for authorities whose stock spans multiple local authorities and urban-rural variations it may be less reflective. Without greater disaggregation in the data it is not possible to model this with greater precision and this stands as a limitation to the research.

In order to estimate the supply of social rented dwellings that are available to new tenants we need to take several steps. First, we impute the ARC data for 2019 on all lets (c7), general needs lets (c7.1) and lets to existing tenants (C8.1) for each local authority by attributing the housing association level responses to ARC according to their stock in each local authority. Thus, for each local authority area for 2019 we have a count of:

- all lets
- general needs lets, and
- lets to existing tenants

¹⁰ Scottish COntinuous REcording (SCORE), which has been discontinued.

Whilst a three-year average was used in the last report, we use a single year approach for two reasons. First, the additional modelling complexity in attributing multi-year averages across stock and second, because of the increase in the SRS supply in recent years means the most recent year is likely to be most representative (once this increase in stock is accounted for in all lets).

The second step is to estimate the number of general needs lets that are available to new tenants in 2019. To do this we calculate the proportion of all lets that are to existing tenants, subtract this from 1 and apply that proportion to the count of general needs lets. The ARC data has no specific count of lets to new tenants, therefore, to arrive at this figure an assumption is needed. The ARC data includes several reasons for lets, but some of these reasons are double-counted in the statistics (i.e. reasons aggregate to a greater number than the total number of lets). Therefore, we assume that the total number of lets is accurate and the number of lets to existing tenants is accurate, and then use the relationship between these two counts as the basis to estimate the proportion of general needs lets that are to new tenants (column C in table 6.10).

Two further steps are required before we have an accurate estimate of the total supply of social re-lets per local authority. The third step is to account for the proportion of lets that arise from death or institutional care. This is referred to in the 2015 report as *removing the net household formation 'double count'*:

“comparing social lets with estimates of net household formation leads to a double-counting of supply. This is because of the way that SRS dwellings released through the death of a single person living as a household, or a move to an institutional setting, are treated. If all social lets (including those released through the circumstances just mentioned) are assumed to be available to meet need, this ignores the fact that such 'needs' have already been met by virtue of taking net (rather than gross) household formation (i.e. the model 'provides' for a let to meet a need that has also been 'absorbed' by presenting household change in net terms).

To deal with this, two approaches are possible. First, a detailed demographic cohort model could be constructed by utilising age-specific headship rates from within the household projections to estimate the contribution of gross household formation and dissolution to net change. This technically challenging exercise is made more difficult because age categories in key projection tables cannot be read across from one to the other without the need for interpolation and certain other simplifying assumptions. Nevertheless, interim analysis based on tables provided by NRS suggests that future changes in net household formation will be driven more by gross household dissolution than by gross household formation. This implies that accounting for the impact of household dissolution is more important than gross household formation, which is comparatively constant.

Second, the assessment of net social re-lets (which is the focus of this section) could include an adjustment that removes a proportion of lets consistent with the level of re-lets that are occasioned by death or a move to institutional care. This approach is simpler although, owing to data limitations, necessitates an assumption that the rate of lets made because of the death or move to care of a previous tenant is consistent between the RSL and LA sectors within each council area.

The second approach just described offers an appropriate balance between conceptual clarity and practicality and was applied as follows.” (Powell et al., 2015 pp33-34)

In 2015 we used SCORE data to model this adjustment, but, as we no longer have SCORE data available and there is no available alternative statistic, we have had to provide an estimate using historic data inflated to reflect recent growth in the SRS. In 2013/14 on average 17.7% of SRS lets arose as a result of death or a move to institutional care, leaving 82.3% of availability (leading to a letting) arising from other reasons. Once the increase in the size of the SRS is taken into account, arising through new supply and increases in ageing are factored in, it is reasonable to suggest that this proportion has risen. We estimate this at 88% (i.e. an approximately 5% increase since the 2015 research), although this remains an untested assumption with limited corroborating evidence. We expect that, all other things being equal, that falling mortality rates amongst older people and higher proportions of elderly remaining in their own homes will reduce the proportion of lets arising from death/move to institutional care. The estimate we use – 88% – is then applied to the supply of social lets (column D in table 6.13). This adjustment accounts for the potential double counting between using a net household projection (e.g. after deaths and institutional moves accounted for) and using a supply figure that will include re-lets occasioned by the death/institutional move of the previous tenant.

The final stage is to take into account the increase in supply that occurred in the SRS in 2019, to indicate the number of 're-lets' rather than the number of all general needs lets. This is for the reasons set out earlier – the model is a gross requirements model rather than one that assumes any given rate of new affordable housing construction. Again, ARC data does not provide the relevant direct categorisation of lets to do this. However, it is a relatively straightforward matter to use the estimate of new social rented housing construction as a proxy for this. To do this we use the Scottish Government's supply statistics for the SRS by local authority (column E in table 6.13), subtracting this supply from the supply of lets to give the supply of Social re-lets (column F in table 6.13).

In total there are 28,167 SRS re-lets available for new tenants to be included in the model each year over the period 2021-26. This is an increase of just over 1,000 dwellings per annum of the number modelled in 2015.

Table 6.13. Supply of social re-lets

Area	A. Total Lets	B. General Needs Lets	C. General Needs Lets to New Tenants	D. 88% to reflect lets from deaths or institutional care	E. New supply of SRS 2019	F. Supply of Social re-lets
1 Capital region	11,231	9,620	7925	6,975	1953	5,022
2 West Central	19,219	17,295	14001	12,320	2234	10,086
3 Tayside and North East	10,979	9,011	7567	6,658	950	5,708
4 Highlands, Islands and West	5,057	4,470	3615	3,183	695	2,488
5 Central	9,708	8,047	6357	5,595	732	4,863
Scotland	56,193	48,443	39464	34,731	6564	28,167

Source: ARC 2018/19, Housing Regulator, AHSP 2019, authors' own calculations

Shared Ownership re-sales

Supply for affordable housing also comes in the form of existing home-ownership stock that is re-sold at an affordable level. Low-cost home-ownership has been expanding in recent years in Scotland; Shared Ownership in particular presents housing that can be returned as new supply. Other forms of low-cost home-ownership, such as Shared Equity, may be sold but they are likely to be sold at market value with the government reclaiming their proportion of the value of the property. This might or might not result in another household being able to access finance but this would be part of a policy decision regarding new supply rather than existing stock.

There is no data on the number of Shared Ownership properties in Scotland that is routinely collected. Therefore, we build up a picture of the stock by taking the latest available count data from the 2011 census by local authority and inflating this in line with new supply.

Research on the number of Shared Ownership properties that are re-sold is limited. In 2015 we relied on evidence from research undertaken in England which estimated an annual supply of 2.5% of stock being re-sold each year. In 2016 the Council of Mortgage Lenders (CML) commissioned broader research covering the whole of the UK (Clarke et al. 2016). Whilst the evidence is limited, CML research found that only 2.35% of stock was re-sold annually. We apply this to our estimation of the stock of Shared Ownership properties per local authority (see table 6.14).

Table 6.14 Supply of Shared ownership re-sales

Area	2011 stock	New supply (2011-19)	2019 Estimate of supply	Percentage resold*	Imputed Re-sales per annum
1 Capital region	2,626	1,168	3,794	2.35%	90
2 West Central	3,011	1,339	4,350	2.35%	101
3 Tayside and North East	2,325	1,035	3,360	2.35%	77
4 Highlands, Islands and West	1,402	623	2,025	2.35%	48
5 Central	804	358	1,162	2.35%	28
Scotland	10,168	4,523	14,691	2.35%	344

Source: Census 2011, AHSP statistics, *Clarke et al., 2016

Removing the effect of demolitions?

There remains the question of whether to model demolitions in the overall supply of affordable housing. Whilst some models of housing need seek to take into account future demolitions in the requirement for additional housing we do not do so. As we have argued above the model should be seen as a gross requirement, therefore demolitions may require additional affordable housing to be supplied (depending on location, type etc). Two further arguments against modelling demolitions were included in the 2015 report.

“First, it is impossible to tell from the data sources the proportion of demolitions that were of affordable housing. Second, and more significantly, it is appropriate to assume that demolished properties were taken out of management and therefore unavailable to meet needs for some time prior to their demolition. As a result, it is reasonable to expect that any housing needs created by the decision to demolish (e.g. decanted households) will have been captured in the model as homeless/threatened with homelessness acceptances. A slightly more generous specification of the model would seek to remove a proportion of these demolitions from the overall estimate of affordable supply, but we have not done so.” (Powell et al., 2015, p.34)

Geography of need

The approach of this research is to assess housing need as closely as possible to local authority scales. Evidently Scotland's geography and housing market areas provide a variegated backdrop to this approach. Whilst some local authorities may be able to meet the housing need that originates within a different local authority, many will not. Indeed, for many local authorities it would not be socially desirable to meet housing need in a different location to the one which it arises in.

Therefore, whilst the City of Edinburgh may be able to have a resident's housing need met in a neighbouring authority (or vice versa) this would not be possible in the case of the Western Isles, where need may be only usefully met on the specific island that it arises on. It is beyond the remit of this research to clearly demarcate the distinct spatial patterns through which housing need may be justifiably met, but we can use parameters for this. As such, our model works on the assumption that housing need must be met in the local authority it arises in. In some instances (complex markets or conurbations) our model will slightly overestimate need, but equally it may slightly underestimate need in more rural housing market contexts. At the level of the five-way classification and for Scotland as a whole we expect these marginal effects to more or less balance out.

The overall supply of affordable housing

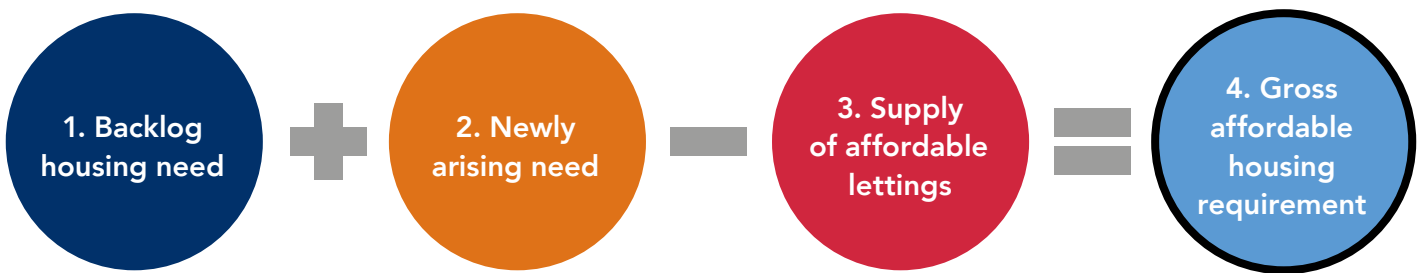
In order to provide an estimate of the overall supply of affordable housing we combine the supply of social re-lets with shared ownership re-sales (noting no modelling of demolitions as discussed above). Thus, the geography of affordable housing supply and the overall supply for Scotland is shown in table 6.15. It is clear that West Central has a substantially higher supply of affordable housing per annum than any of the other clusters of authorities. Whilst West Central has the highest number of Shared Ownership re-sales, the size of the supply is almost entirely driven by a large number of SRS re-lets.

Table 6.15 Overall supply of affordable housing

Area	Supply of affordable housing per annum
1 Capital region	5,112
2 West Central	10,186
3 Tayside and North East	5,785
4 Highlands, Islands and West	2,536
5 Central	4,891
Scotland	28,510

Source: Author's own calculations

Step Four: The core model outcomes - Gross affordable housing requirement



The core model outcome as a gross annual affordable housing need for Scotland is calculated by adding the backlog of housing need (calculated in step one) to the newly arising affordable housing need (calculated in step 2) before subtracting the expected supply of social housing from re-lets (calculated in step three). These are the same steps as undertaken in 2015 and are based on a stock-flow model that is relatively common.

The model comprises five groups of local authorities, which form the basis of the geography that underpins our analytical units. The premise is that housing need arising in one local authority should be met in that local authority and not transferred across the boundary. This is evidently a simplification, which masks both need arising in one local authority that is met in another (which may reduce the overall housing need estimate if the receiving local authority has a surplus) and need that arises within a particular area of a local authority that cannot be met in another part of that local authority or in another authority (which may increase the estimate of overall housing need).

The 'positive need' approach is modelled by simply constraining the calculated shortfall for each local authority area to zero or greater. Negative shortfalls at the local authority level are therefore not permitted in the model. This is why in the Central region for example the unadjusted annual affordable requirement of -133 (which is the aggregate of every local authority in the region) is superseded by the positive annual affordable requirement of 532 (which essentially discounts local authorities with negative requirements).

The core model, which we consider to be based on the most likely demographic and market trends, suggests a positive gross need for approximately 10,600 dwellings per annum over the next five years. This is around 1,400 dwellings per annum fewer than the assessment in 2015. It represents 69% of the expected net increase in Scotland of 15,315 households each year, over the period 2019-2024. Below, table 6.16 shows the basic calculation steps for the core model by area type.

Table 6.16 Core model outputs (annual 2021-2026)

Area	Step One Backlog	Step Two Newly arising	Step Three Net affordable supply	Unadjusted annual affordable requirement	Step Four Positive annual affordable requirement	Affordable need as % of projected net household increase
1 Capital region	2,732	8,350	5,112	5,969	6,215	113
2 West Central	3,029	8,212	10,186	1,055	1,855	44
3 Tayside and North East	1,655	4,987	5,785	857	1,299	46
4 Highlands, Islands & West	1,175	1,911	2,536	549	685	82
5 Central	1,326	3,432	4,891	-133	532	28
Scotland	9,917	26,891	28,510	8,298	10,586	69

Source: Author's own calculations

Table 6.16 shows the highly variable housing requirements by local authority classification in 2021-26. The Capital Region cluster¹¹ has a need for over ten times as many affordable dwellings per annum as the Central¹² cluster. The table also shows the significant impact that the large net affordable supply has in the West Central¹³ cluster. With approximately double the net supply of the Capital Region, the difference in affordable housing requirement is largely attributed to the large scale of the existing stock.

¹¹ West Lothian, City of Edinburgh, Midlothian, East Lothian, Scottish Borders, Fife

¹² Clackmannanshire, Falkirk, North Lanarkshire, Stirling, East Ayrshire

¹³ Inverclyde, West Dunbartonshire, Renfrewshire, East Dunbartonshire, Glasgow City, East Renfrewshire, North Ayrshire, South Lanarkshire

Table 6.17 identifies the changes in model components between 2015 and 2020 for the five clusters identified in this research. The overall reduction in net positive need between 2015 and 2020 in Scotland comprises of large proportionate decreases in the West Central and Tayside and North East clusters, but increases in the Capital Region; Highlands, Islands & West; and Central. The largest absolute changes are in relation to the Capital Region and West Central cluster. In the Capital Region the backlog has been relatively stable, but there has been an increase in the combined impact of household growth and house price inflation resulting in a large newly arising need per annum and decrease in the supply of SRS re-lets. In contrast West Central has seen a substantial decrease in the backlog between 2015 and 2020 as well as a decrease in newly arising need, whilst at the same time supply has increased.

Table 6.17 Core model outputs by area, comparison of 2015 (apportioned) and 2020 models

	2015				2020				Change (%)			
	Backlog	Newly arising	Supply	Net positive need	Backlog	Newly arising	Supply	Net positive need	Backlog	Newly arising	Supply	Net positive need
1 Capital region	2,772	7,844	5,423	5,259	2,732	8,350	5,112	6,215	-1	6	-6	18
2 West Central	3,828	8,567	9,741	2,930	3,029	8,212	10,186	1,855	-21	-4	5	-37
3 Tayside and North East	2,464	5,089	4,736	3,019	1,655	4,987	5,785	1,299	-33	-2	22	-57
4 Highlands, Islands & West	994	1,989	2,601	424	1,175	1,911	2,536	685	18	-4	-3	62
5 Central	1,126	2,972	4,825	382	1,326	3,432	4,891	532	18	15	1	39
Scotland	11,184	26,461	27,326	12,014	9,917	26,891	28,510	10,586	-11	2	4	-12

Source: Author's own

Alternative model scenarios

For the core model we have used two standard assumptions: that the household projections conform to the NRS' 'principal' projections; and that house prices continue in line with inflation (see table 6.17). However, it is plausible that these assumptions will not hold true. As such, we have created four alternative scenarios, to be considered as parameters for the assessment of affordable housing need. As discussed above, these scenarios represent high and low migration and strong and weak growth in house prices and rents (see table 6.18). They make a significant difference to the outcomes of the modelling, with variations in new households from 11,433 up to 19,185 of which between 58% and 76% would need their housing met in affordable accommodation (table 6.18).

Table 6.18 showing the total housing requirement under alternative modelling scenarios

Price/rental growth assumption	Indicator	Migration assumption	
		High	Low
Strong growth	Positive net need	19,185	11,433
	% affordable	62	76
Weak growth	Positive net need	19,185	11,433
	% affordable	58	64

Source: Authors' own calculations

Table 6.19 Affordable housing need by scenario

	Core	High-Strong	High-Weak	Low-Strong	Low-Weak
1st	6,215	6,300	5,900	5,300	4,500
2nd	1,855	2,750	2,500	1,200	1,250
3rd	1,299	1,650	1,500	1,050	800
4th	685	600	500	400	300
5th	532	650	600	700	450
Scotland	10,586	12,000	11,000	8,700	7,350

Source: Author's own calculations

Sensitivity analysis

The model is most sensitive to a change in the supply of social re-lets, but also indicates that changes to the percentage of households unable to afford market housing and changes in homelessness acceptances will have major impacts upon the overall annual affordable housing requirement (see table 6.20). We have used the most robust and credible data available to us in the model, but errors in these input variables (in either direction) would have significant impacts on the overall estimated requirement. In addition, these variables are key indicators, which could be monitored routinely to inform the reliability of the model as the future unfolds.

Table 6.20 Summary of sensitivity of outputs to 1% change in key input variables

Variable	Type 1		Type 2		Type 3		Type 4		Type 5		Scotland	
	+/- %	+/- N	+/- %	+/- N	+/- %	+/- N	+/- %	+/- N	+/- %	+/- N	+/- %	+/- N
Properties below standard	0%	4	0%	-3	0%	4	1%	4	1%	3	0%	18
Properties crowded	0%	9	1%	15	0%	6	1%	3	1%	4	0%	37
Properties unsuitable	0%	1	0%	5	0%	3	1%	5	0%	1	0%	15
SRS mismatch adjustment	0%	0	0%	1	0%	0	0%	0	0%	0	0%	2
% of households unable to afford (adjust 1% point)	1%	42	2%	38	2%	25	3%	16	2%	11	1%	131
Open homelessness cases	0%	14	1%	11	0%	3	1%	3	0%	2	0%	34
New household formation	1%	35	1%	27	1%	14	1%	5	1%	5	1%	86
Homeless acceptances	1%	44	2%	43	2%	21	3%	13	2%	10	1%	131
Supply of social re-lets	1%	50	4%	74	2%	29	5%	24	3%	17	2%	194
Shared Ownership re-sales	0%	1	0%	1	0%	1	0%	0	0%	0	0%	3
Demolitions	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0

Source: Author's own calculations

Summary

Through this chapter we have explained the core model and the alternative scenarios which should be considered when accounting for affordable housing need in Scotland over the period 2021-26. The core model represents a 'mid-point' scenario in terms of future demographic and house price changes, and is considered the most likely to occur. **The core model estimates an affordable housing requirement in Scotland of 10,600 dwellings per annum over five years (rounded).** The alternative modelling scenarios give a range of annual affordable housing requirement of between 7,300 and 11,900. The model described in this chapter is parsimonious with the model undertaken in 2015. The approach is identical and the model and updated data used have been reused where possible. The core model estimates that 1,400 fewer dwellings per annum are required than in 2015. Given the increase in affordable housing supply committed by the Government after the last research one could question why the requirement has not reduced further. Two key issues might explain this. First, the funding provided by the Government was for 10,000 dwellings per annum, 2,000 fewer than our previous model suggested was required. Second, there is a lag in the creation of new affordable housing, thus some of the funding has not yet materialised into new units.

7. Policy and funding implications

Introduction

This chapter highlights the policy and funding implications of our assessment of affordable housing need. It first considers the key components of the housing need figure before providing three alternative funding requirement scenarios. It then explores five key issues that require further consideration if Scotland is to appropriately meet its existing and newly arising housing need.

Scotland has experienced an increase in funding for affordable housing since 2015, impacting positively on tens of thousands of households. This increase in affordable housing supply will continue to support many of these households through the period 2021-26 and will support the Scottish Government's purposes of reducing inequality and increasing wellbeing (Scottish Government, 2019j). However, this progress needs to continue - there remains the need to continue providing new affordable housing in Scotland. **We estimate that 10,600 affordable dwellings per annum are needed throughout 2021-26.** This represents the requirement for new homes over and above those that normally become available (e.g. re-lets) and is the level of housing needed to also clear the backlog of housing need over a five-year period.

This estimate is broadly in line with other recent estimates (e.g. Bramley, 2018) and is similar to the Scottish Government's existing commitment to affordable housing supply. It is around 1,400 fewer units per annum than required since 2015 but in line with the existing programme of affordable housing supply for 2019-20.

The affordable housing figure represents 69% of the overall total housing requirement of 15,300 dwellings per annum. The proportion of new housing that should be affordable has increased from the last study (64%), but the overall housing requirement has reduced by over 1,400 dwellings. Table 7.1 below explores the key components of the model to indicate why there has been a reduction in affordable housing requirement.

Table 7.1. The differences in key modelling components between 2016-20 and 2021-26

	Annual requirement to deal with backlog over 5 years	Estimate of newly arising need	Net affordable housing supply	Positive annual affordable requirement
2016-20	11,184	26,461	27,326	12,014
2021-26	9,917	26,891	28,510	10,586
Difference	-1,267	430	1,184	-1,428

Source: Author's own calculations

What are the core components in the model which explain this reduction in annual affordable requirement?

The reduction in the backlog is a major component. There is projected to be 9,000 fewer households in the backlog by the end of 2020 than there was at the beginning of 2016; equating to an annual backlog of 1,250 per annum (see table 7.1). This change is largely derived in the model from a reduction in households that are in overcrowded or below standard accommodation (not in the social rented sector). The number of homeless cases in the backlog is very similar in the two models.

The estimate of newly arising need has increased by 430 households per annum from 2016-20. Whilst the principal household projections are 3,390 households fewer per annum than in 2016-20, the proportion of households unable to afford to buy or rent privately has increased, causing an increase in the proportion of new households who will require affordable housing (from 8,640 to 9,620). There is a decrease in the number of homelessness acceptances per annum of 900 applications (we assume the same proportion result in net newly arising need).

Net annual affordable housing supply has increased between the two models for 2016-20 and 2021-26 by 1,200 dwellings. Shared Ownership sales are projected to increase, but only account for a total of approximately 340 dwellings per annum in 2021-26. The majority of the increase in supply is accounted for by an increase in the supply of social re-lets.

This chapter highlights some of the key considerations in meeting the 10,600 affordable dwellings per annum target. It considers the financial and funding context and implications as well as wider trends that may influence both the number of dwellings required and the nation's ability to meet its need. The chapter draws heavily on the estimate of need (see chapter six), but also the demographic trends in Scotland (detailed in chapter five) and the recent affordable housing policy context (detailed in chapter three). The chapter rarely covers the same material in these preceding chapters (for example outlining existing funding mechanisms) but refers the reader back to them.

Funding affordable housing

The provision of “affordable housing options across Scotland for households at all income levels” (Scottish Government, 2019g, p.15) will require active planning for all housing from market provision for home ownership through to social rented dwellings. However, affordable housing will require substantial government funding to enable this Principle to be realised and, furthermore, this will need to be weighted towards the provision of housing that requires the greatest subsidy.

As we discussed in chapter three on housing policy development since 2015 the Scottish Government has set benchmarks for the financial support of below-market housing through the Affordable Housing Supply Programme (see table 7.2). The benchmark values have increased above inflation since 2015 (for example the RSL mid-market rent greener value has gone up from £34,000 to £46,000 per 3-person dwelling). In spite of this increase in costs per unit, the overall increase in finance available has been sufficient to enable the uplift in affordable housing supply which has been evidenced since 2017.

Table 7.2 Grant subsidy benchmarks

	West Highland, Island Authorities and remote and/or rural Argyll	Other rural	City and urban
RSL social rent – greener*	£84,000 (3 person equivalent)	£74,000 (3 person equivalent)	£72,000 (3 person equivalent)
RSL social rent – other	£82,000 (3 person equivalent)	£72,000 (3 person equivalent)	£70,000 (3 person equivalent)
RSL mid-market rent – greener	£46,000 (3 person equivalent)		
RSL mid-market rent – other	£44,000 (3 person equivalent)		
Council social rent – greener	£59,000 (flat rate for council projects)		
Council social rent – other	£57,000 (flat rate for council projects)		

Source: Scottish Government, 2019, from the Subsidy Working Group

The cost of providing affordable housing is likely to increase during the period 2021-26 at least in line with inflation. Issues regarding labour and the availability of materials, as well as recommendations regarding a continued increase in the quality of housing to mitigate climate change, will require a commensurate response in the level of funding to ensure that the number of dwellings required is provided.

“...much more consideration going forward to making the best use of money and incorporating the wider impacts of housing investment and their links to regeneration, interconnectivity and so on...a primary focus on housing numbers is perhaps inevitable when you’re delivering so little, but now I think there is a much wider view” (Interview: national housing charity)

Given the previous time lag between introducing higher subsidy levels and new development being completed, it is necessary to ensure that affordable housing providers are able to plan the delivery of new housing (in conjunction with private developers) through ongoing commitment from the Government that subsidy levels will align with changes in development costs. The flexibility exhibited by the Scottish Government in 2016-20 in enabling some social rent and MMR to be developed at higher costs increases the likelihood that the delivery of 10,600 dwellings per annum is possible across the whole period.

“It’s fine to drive up numbers but we need to think of the impacts on quality...there is increasing competition over skilled workforces and forms which has served to drive up prices and increase the cost of delivery” (Interview: national housing charity)

Affordable housing is functioning more adequately in Scotland than in many other parts of the UK. The recent increases in affordable housing supply subsidies have had a real impact upon both existing overall housing need and are capable of supporting future households as existing households move. The centrality of housing in meeting societal needs and supporting the Scottish Government’s objectives requires continuation of this funding. A strong Affordable Housing Supply Programme of 10,600 dwellings per annum would support both projected population growth and meet the nation’s backlog of housing need by 2026.

The funding implications of this can be approximated using the Scottish Government’s benchmarks. Three broad funding scenarios are considered: 100% RSL Social Rent; 66% RSL Social Rent and 34% RSL mid-market rent (MMR); and 50% RSL Social Rent and 50% RSL MMR. The middle scenario of 66% RSL Social Rent and 34% MMR is discussed here as a central scenario, reflecting the current scenario and the short-term commitment by the Government to fund majority social rent (Scottish Government, 2020b).

The benchmark for RSL Social Rent varies by the type of location for development, with urban areas receiving less than rural areas and the islands. Applying these benchmark figures to the whole cluster is, therefore, a simplification of the reality but provides a broad picture of the funding that might be required. Meeting the affordable housing requirement per annum at 64% RSL Social Rent and 34% MMR would require an annual allocation of approximately £676 million, or £3.4 billion between 2021 and 2026 (see table 7.3). This is very similar to the Affordable Housing Supply Programme for 2016-2021 which was allocated £3.5 billion (Scottish Government, 2020a) and is actually below the £843 million allocated to the Affordable Housing Supply Programme budget for 2020-21, out of the overall spending plan of £1.1 billion for housing in 2020-21 (Scottish Government, 2020b). This level of funding has been supported by the Scottish Federation of Housing Associations, as Sally Thomas wrote in response to the draft budget:

“We are pleased to see that the Scottish Government is sustaining funding for the final year of the Affordable Housing Supply Programme, which will be essential to meeting the 50,000 homes target as well as to provide a better platform to continue the programme after this parliament ends.” (SFHA, 2020b)

At the rate of 100% social rent the cost would increase to £774 million per annum (£3.9 billion 2021-26), whilst the cheaper option at 50% RSL and 50% MMR would be £631 million per annum (£3.2 billion 2021-26).

Table 7.3 Funding scenarios for 10,600 affordable dwellings per annum

	Core (dwellings)	RSL Social Rent – greener benchmark	RSL Mid-Market Rent – greener benchmark	100% RSL Social Rent - Greener	66% RSL Social Rent / 34% Mid-Market Rent	50% RSL Social Rent / 50% RSL Mid-Market Rent
1st	6,215	£72,000	£46,000	£447,480,000	£392,539,000	£366,685,000
2nd	1,855	£72,000	£46,000	£133,560,000	£117,162,000	£109,445,000
3rd	1,299	£74,000	£46,000	£96,126,000	£83,760,000	£77,940,000
4th	685	£84,000	£46,000	£57,540,000	£48,690,000	£44,525,000
5th	532	£74,000	£46,000	£39,368,000	£34,303,000	£31,920,000
Scotland	10,586			£774,074,000	£676,454,000	£630,515,000

Source: Author's own calculations

The calculations in table 7.3 are based on a uniform level of grant between clusters. Whilst some areas, such as the islands require higher subsidies to account for higher construction costs, which is recognised in the Grant Subsidy Benchmarks, there also needs to be detailed analysis of the level of subsidies that will be required in the Capital Region in order to ensure that land supply can be maintained to support the delivery of over 6,000 affordable dwellings per annum.

Evidently there are choices for the Scottish Government to make regarding the overall allocation of funding for affordable housing and the location and type of supply that will be encouraged. MMR provides the opportunity of a lower level of subsidy per unit and should be a key component of continuing to deliver high quality affordable housing. However, MMR is not universally appropriate and will need to be spatially targeted in housing areas both where households can afford this level of rent and where developers are prepared to accept the lower amount of development costs inherent in the benchmark. The model suggests that a smaller proportion of newly forming households will be able to afford market prices and rents than in 2015-20, which suggests that a focus on housing supply with lower costs (i.e. social rent through either council or RSLs) should remain a core component of the Government's affordable housing supply programme. Recent research by the Joseph Rowntree Foundation found that levels of poverty before housing costs were similar in Scotland and in England, but once housing costs have been factored in there is a decrease in poverty rates. The reason for this is the lower costs of some forms of housing in Scotland than in England (Joseph Rowntree Foundation 2019). Continued support for increasing the stock of social rented housing is likely to be a major factor in preventing the incidence of poverty from increasing in Scotland.

Further issues for consideration to successfully deliver Scotland's housing need post-2021

The section above has clearly outlined the funding implications to meet the need for 10,600 affordable dwellings per annum to be built in Scotland per annum between 2021 and 2026. However, there are issues beyond funding (at the current rate) that need consideration if this housing is to be appropriately delivered. We have identified five key issues that need consideration at the level of national assessment: housing for older households; the impact of Brexit; the impact of future demolitions; climate change; and the preservation and improvement of the existing stock. We consider each of these in turn below.

i. Housing for older households

Scotland's population profile is ageing, like many other nations. The increase in housing designed for older age groups in place since 2015 is a useful addition to the housing stock and will support several thousand households, but there remains substantial scope for further growth in this type of housing (McCall et al., 2019). The Scottish Government's recognition of the key challenge of housing an ageing population, through enabling both in-home adaptations to the existing housing stock and the provision of both specialist and adaptable new stock, is to be applauded (e.g. Scottish Government, 2019g; CIH Scotland, 2020). The Scottish Government's Principle 14 of the Housing to 2040 document will require financial support that is locally tailored in order to meet the precise needs of older households. In 2019 the SFHA's own research suggested identified a £7 million shortfall in funding for housing associations "to enable people to stay in their homes, return to them after hospitalisation and promote physical and mental wellbeing" (Scottish Federation of Housing Associations, 2019b). The Local Government and Communities Committee feeding into the Government's budget for 2020-21 highlighted the need for funding to support housing adaptations, and to assess the performance of Integration Authorities in supporting these adaptations (Scottish Government, 2020b). To support older people across all tenures consistent funding will be required each year.

The type of housing that will be suitable for older households will vary between cultural norms across Scotland. Scottish Government funding has recognised this to an extent previously with, for example, higher levels of funding for islands, but this funding needs to be matched with support for the design of local solutions for older households. This will require both capital funding for the creation of new bespoke dwellings and adaptation of the existing stock but will also require funding for local analysis and support for councils in leading community assessments and design. The commitment by the Government to support older people moving home (Scottish Government 2019g) is welcome, but requires sufficient quality housing to be available and sufficient support to prevent isolation and loss of community when moving home.

ii. The impact of Brexit

While the nature of the legal situation regarding Brexit may be known by 2021, it is unlikely that the full permutations of this for migration, the economy, house prices and affordability will have had a major impact on the housing requirement in Scotland. Whilst the impact of Brexit on Scotland may be less severe than other parts of the UK, in-migration as well as exports of goods and services are modelled to fall (Fraser of Allander Institute, 2019). As the period 2021-26 progresses the likelihood of these factors influencing housing requirement will increase, with the potential to have a disproportionate impact upon the scale of affordable housing required. The impact of Brexit, as well as the UK Government's welfare reforms, are recognised as key challenges in Housing to 2040 (Scottish Government, 2019g), but this needs to be recognised in the Principles through planning resources and financial support to understand the impacts and limit the negative outcomes for delivering affordable housing.

The Scottish Government allocated £827 million for the AHSP in 2019-20 which is intended to support the delivery of approximately 10,000 dwellings, which it is recognised will support jobs in the construction industry and increase demand for training. The Government's own funded analysis of the impact of Brexit on construction workers argues that "Although the construction sector in Scotland is less dependent on EU workers than the Scottish average, there could be significant indirect impacts given the higher reliance on EU workers in the rest of the UK. Skills shortages in England, particularly London, could push up wages for construction workers in England. As a result, this could put upward pressure on construction wages in Scotland to prevent workers from migrating south" (EY, 2019, p.6). The concern regarding the cost of skilled workers increasing, as competition for a limited pool of workers can be intense, as well as the wider concerns of the existing labour market are outlined in chapter three (Smith, 2019) continuing the need for further training in the construction industry and support for mobility to gain construction experience (EY, 2019). If skilled construction workers leave after Brexit or if the labour market becomes constrained further then additional support will need to be considered in the allocation of funds to provide the requisite affordable housing.

iii. The impact of future demolitions

The impact of demolitions remains a key issue in understanding how many new dwellings will be required and where. Whilst we have made the assumption that demolitions will remain low (in 2018-19 there were 1,300 recorded demolitions, but this may exclude additional private stock demolished; we do not model future planned demolition explicitly in the same way that we do not account for future planned housing delivery), they can have a geographically concentrated impact on housing need. As such the government needs to ensure that where dwellings have a useful shelf life (i.e. can be materially maintained and meet need regarding size and type) that they are maintained and that rehabilitation programmes actively bring properties back into use that could meet housing need. Conversely, where stock is not meeting required standards or is not suitable for future households, but where there is local need, then demolition will require a commensurate increase in the number of units supplied locally.

iv. Climate change

The Scottish Government has repeatedly argued that Scotland needs to become more acutely aware of the challenges of climate change and end its contribution to it by reaching the level of net-zero emissions for greenhouse gases by 2045 (e.g. Scottish Government, 2019g). In 2019 the First Minister announced a climate emergency. The Cabinet Secretary for Environment, Climate Change and Land Reform has argued that "it's not too late for us to turn things around, but to do so requires transformative change" (Cunningham, 2019). The climate emergency and response is not limited to housing supply, but will necessarily incorporate it. Chapter three of this report outlined many of the existing policies that have been put in place to both decrease emissions and reduce the costs of heating homes, largely through retro-fitting but also through enhanced standards of construction.

This goal is likely to have implications on the construction industry, which may increase the costs of construction, but may also require more diverse (or novel) forms of construction. Whilst this may be seen as a downside risk for the provision of affordable housing, issues such as fuel poverty may also be addressed through increasing the quality of insulation in the existing stock (through policies such as HEEPS) and wider heating schemes (such as the District Heating Loan Fund), which has the potential to meet some housing need in situ.

The housing that is built over the period 2021-26 will need to limit the short-term impact on the environment through limiting emissions, but also recognise that the stock will need to last for a significant time period to avoid the negative impact of early redevelopment.

The retro-fitting of existing stock is a major challenge for Scotland to be net zero carbon by 2045, but this also presents an opportunity. Investment in housing that is below acceptable standards and supporting households that are in fuel poverty by increasing the quality of their dwelling's thermal performance also offers the possibility of meeting some of Scotland's housing need in situ. Whilst the SRS has a greater proportion of energy efficient homes than other sectors (Scottish Government, 2018e), the proposed target of EPC B by 2032 (set under EESSH2) in all social rented homes will make a substantial contribution to reaching net zero (Scottish Government 2018e). SRS landlords are required to make their stock meet the Energy Efficiency Standard for Social Housing (EESH) by the end of 2020, and have been doing so largely from their own financial resources (Scottish Government, 2019h). The higher standards that will be required for EESSH2 are likely to require additional funding rather than relying on RSL's own resources as adaptations become more expensive. However, the recognition in the Energy Efficient Scotland consultation that many dwellings in the PRS are at a lower standard and that it may not be cost effective for private landlords to achieve EPC by 2030 requires further attention. The PRS will need active management and support to make its dwellings more energy efficient and to limit the number of, particularly low income, households living in energy inefficient PRS dwellings. Thus, there is a need to continue the HEEPS programme to make low-cost loans available to private landlords as well as owner occupiers.

The budget for 2020-21 prominently identifies climate change as a key determinant of funding priorities, including the continuation of schemes like Warmer Homes Scotland and HEEPS (£55 million). However, this level of funding has been criticised for not enabling a genuine step change in housing energy efficiency, as Sally Thomas argued: "Key opportunities to increase funding for measures that would make a real difference to people's lives – such as energy efficiency and adaptations – have not been taken. The small increase in energy efficiency funding is only a fraction of what is needed – as part of the Existing Homes Alliance we had called for it to be doubled." (SFHA, 2020).

Climate change is unlikely to have a major impact directly on many dwellings in Scotland over the period 2021-26 through issues such as sea level rise and more frequent extreme weather events. However, new dwellings will need to be built to appropriate standards and in the right locations, projected over the lifetime of the dwelling.

v. Preserving and improving the existing stock

The preservation and improvement of existing stock is both necessary and an opportunity to meet some housing need. Our model assumes that housing stock in the SRS will be maintained so that it does not fall into disrepair. Such active management will prevent further households falling into housing need. For households whose dwellings are currently below standard (as assessed in our model through the SHCS standards) their housing need may be met in situ if the dwelling can be repaired or brought up to standard. The cost for undertaking these repairs will vary widely and some may require little central support, whilst others will need to make use of existing schemes (e.g. to enhance insulation) or new funding mechanisms. A more detailed analysis of the costs associated with normal repairs against the most frequent reasons for failing the SHCS standard could support an estimate of the national cost.

Whilst preservation of the housing stock is required regardless of the type of stock, there has been an understandable recent focus on tenements as a particular type of stock requiring attention. The Working Group on Maintenance of Tenement Scheme Property has made clear recommendations about how the stock should be managed through a focus on inspection, new forms of ownership and building reserves funds to support maintenance costs (RICS, 2019). It is beyond the remit of this report to discuss these recommendations in detail, but understanding the legislative changes required to facilitate the creation of owners associations has been supported in principle by the Scottish Government who agree "that action is needed to improve the condition of our tenements to ensure that our buildings can provide good quality, safe and sustainable homes in the future." (Scottish Government, 2019k).

vi. A note on COVID-19

The impact of COVID-19 has not been modelled in our research. We concluded the research prior to the first case of COVID-19 in Scotland and the evidence is predicated on the longer term trends that pre-date COVID-19. The precise impact of COVID-19 on housing need is unclear and there is little evidence, at the time of writing, which could credibly enhance the modelling. However, it is worthwhile noting here some of the possible ways that COVID-19 could impact on the research outcomes. Without further evidence, we cannot confidently determine the exact impact, but our collective view is that modelling based on longer term trends is likely to be the most accurate approach.

- **Overcrowding:** There may be an impact on the model outcomes arising from changes in the overcrowding of dwellings. Where households are constrained from moving but have changing household sizes (births/deaths) there will be an impact upon the rate of overcrowding.
- **Inadequate housing:** In the short term there is likely to be an increase in the number of households in inadequate housing as a result of COVID-19. There have been pressures on the building and maintenance industry to undertake social-distancing measures and difficulties in accessing appropriate Personal Protective Equipment to carry out maintenance and repairs. This may cause a delay to planned maintenance and in remedying newly arising problems with housing quality. This, if true, will increase the proportion of households in inadequate housing in the short term, which will in essence add to the backlog of households in housing need prior to 2021. The scale of this impact is likely to be modest if the reduction in maintenance work is short-term. The longer it lasts, however, the more it is likely to add to the backlog.
- **Social re-lets:** The immediate supply side impact on the model may be greater in relation to how the SRS is able to respond to the crisis through re-lets. Anecdotally, lettings have ground to a halt, which impacts short term re-let rates. As we argue in the report "If turnover decreases (for reasons as diverse as, for example, increased longevity, increased population stability, tenants moving less frequently or there being fewer evictions) this will result in a smaller future supply being available to meet both backlog and arising needs." (p.78). The supply of SRS is shown in the sensitivity analysis to have a large overall impact on the model results. The Scottish Government's guidance to continue social lettings¹⁴ suggests that lettings are unlikely to be significantly reduced over the period 2021-26.
- **Newly arising need:** Newly arising need is largely driven by two factors: population change (and structure) and incomes. There will be an impact on mortality rates, birth rates and migration rates arising from COVID-19 that has an impact on household projections, although the length and scale of these new trends is unknown and short term adjustments may be a poor indicator of the five year newly arising need. As yet there has not been any publicly available modelling done on how COVID-19 might impact these projections. One of the key issues in Scotland is the distribution (i.e. geography) in where housing need arises, the economic impacts on businesses may have a more profound impact on internal migration and thus overall housing need in Scotland (due to the positive, rather than unadjusted, annual requirement) than the death/birth rates. Newly arising need is shown in the sensitivity analysis to have a large overall impact on the model results.

¹⁴ <https://www.gov.scot/publications/coronavirus-covid-19-allocations-advice-and-information-for-the-housing-sector/>

- **Homeless households:** Homeless households are particularly vulnerable to the impacts of COVID-19. Difficulties in self-isolating, combined with the correlation between existing health issues and homelessness, mean that the need to support homeless households is particularly acute. It is too early to know how the backlog of homelessness and newly arising homelessness will be impacted by COVID-19. Many households are likely to be more precarious as a result of financial, relationship and health strains, some of the key reasons why people become homeless (Shelter Scotland, 2019). The scale of homelessness acceptances has a large impact on the model (according to the sensitivity analysis).
- **Overall impact:** The combined impact of these variables on overall housing need in Scotland is not known precisely at present. However, it is clear that there are challenges to the structure of society arising from COVID-19 that place housing at the fore of the response. The need for high quality and affordable housing for all has never been greater nor more obviously a critical component of Scotland's collective wellbeing. Although the scale and net effect of the impacts cannot be estimated without data which are not yet available, there is no scenario which does not lead to higher estimates of housing need. So there is no risk of over-supply of affordable housing; rather the estimates in this report should be taken as the minimum required.

Supporting the delivery of affordable housing to meet Scotland's existing and future needs between 2021 and 2026

The Scottish Government has committed to allocate financial resources to meet the nation's needs. It has stated that explicit consideration will be given to the nation's "wellbeing..., sustainable and inclusive economic growth, tackling child poverty; and tackling climate change" (Scottish Government, 2019). These priorities all require a high quality and affordable housing provision. The empirical assessment of housing need we have undertaken identifies an affordable housing requirement of approximately 10,600 dwellings per annum.

This chapter has shown the government will need to allocate in the region of £675 million per annum to support the delivery of Scotland's affordable housing need between 2021 and 2026.

Progress has been made in Scotland between 2015 and 2020 to increase affordable housing supply and the increases in both per unit and total Scottish Government expenditure should be recognised as key support for this delivery. This progress must continue to support both those households that find themselves currently inadequately housed and those newly forming households whose needs will be as significant as the households that have benefitted from recent Government funding.

References

ALACHO, CIH Scotland, SFHA and Shelter Scotland (2013) A housing report for Scotland: An assessment of the Scottish Government's performance against its housing pledges. Edinburgh: CIH Scotland.

Best, R. (2020) Affordable Housing Commission Report – Conclusions in the Light of the COVID-19 Outbreak. UK Collaborative Centre for Housing Evidence Blog; <https://housingevidence.ac.uk/affordable-housing-commission-report-conclusions-in-the-light-of-the-covid-19-outbreak/>

Boyle, J. (2019) Build to Rent is here to stay: UK Collaborative Centre for Housing Evidence blog, [blog] 11 April. Available at: <https://housingevidence.ac.uk/build-to-rent-is-here-to-stay/> [Accessed 20 August].

Boyle, J. (2020) AC/BC: How COVID Rocked the Market. Rettie Scottish Housing Market Spring Briefing 2020; https://mr0.homeflow.co.uk/files/site_asset/image/3978/6600/Coronavirus_Bulletin.pdf

Bramley, G., Khofi Karley, N. and Watkins, D. (2006) Local Housing Need and Affordability Model for Scotland – Update (2005 based). Edinburgh: Communities Scotland.

Bramley, G. (2018) Housing supply requirements across Great Britain: for low-income households and homeless people, Crisis and the National Housing Federation, accessed at https://www.crisis.org.uk/media/239700/crisis_housing_supply_requirements_across_great_britain_2018.pdf

Chartered Institute of Housing (2018) Missing the target? Is targeted affordability funding doing its job? Coventry: Chartered Institute of Housing.

Chartered Institute of Housing (2020) Homes not Houses: Housing and Ageing, accessed at: <http://www.cih.org/resources/PDF/Scotland%20Policy%20Pdfs/Older%20People/Housing%20and%20Ageing%20January%202020%20FINAL.pdf>

Chartered Institute of Housing (2020) UK Housing Review 2020, accessed at: <https://www.ukhousingreview.org.uk>

Crawford, J. and McKee, K. (2018) Hysteresis: Understanding the housing aspirations gap. *Sociology*, 52 (1), pp. 182-197.

Cunningham, R. (2019) The Global Climate Emergency – Scotland's Response: Climate Change Secretary Roseanna Cunningham's statement, accessed at: <https://www.gov.scot/publications/global-climate-emergency-scotlands-response-climate-change-secretary-roseanna-cunninghams-statement/> [Accessed on 24th February 2020]

EY (2019) Sectoral Impact Analysis and Brexit readiness Assessment, January 2019, available at: <https://www.gov.scot/publications/sectoral-impact-analysis-brexite-readiness-assessment/pages/5/>

Fitzpatrick, S., Pawson, H., Bramley, G., Watts, B., Wood, J., Stephens, M. and Blenkinsopp, J. (2019) The homelessness monitor: Scotland 2019. London: Crisis.

Fraser of Allander Institute (2019) Long-term Economic Implications of Brexit, available at: http://www.parliament.scot/General%20Documents/Fraser_of_Allander_-_Brexit.pdf [accessed 10th January 2020]

- Hedley, S. and Joy, I. (2011) Review of Allia's charitable bonds. London: New Philanthropy Capital.
- Hoolachan, J., McKee, K., Moore, T. and Soaita, A. (2017) Generation rent and the ability to 'settle down': economic and geographical variation in young people's housing transitions. *Journal of Youth Studies*, 20 (1), pp.63-78.
- LAR Housing Trust (2018) Annual review 2018. Dunfermline: LAR Housing Trust. McCall, V., Phillips, J., Lovatt, M., Robertson, J., Rutherford, A., Woolrych, R., Sixsmith, J., McIntyre, Z., Porteus, J., Ziegler, F. and Eadie, J., (2019) Housing and ageing: linking strategy to future delivery for Scotland, Wales and England 2030. Stirling: University of Stirling.
- McGovern, G. (2019) Scottish planning reforms passed by ministers. London: Pinsent Masons.
- McKee, K. and Soaita, A. (2018) The 'frustrated' housing aspirations of generation rent. Glasgow: UK Collaborative Centre for Housing Evidence.
- National Records of Scotland (2019a) Mid-year population estimates Scotland, mid-2018. Edinburgh: National Records of Scotland.
- National Records of Scotland (2019b) Scotland's population 2018 infographic. Edinburgh: National Records of Scotland.
- Powell, R., Dunning, R., Ferrari, E. & McKee, K. (2015) Affordable Housing Need in Scotland, Report for SFHA, CIH Scotland and Shelter Scotland, accessed at: https://scotland.shelter.org.uk/_data/assets/pdf_file/0009/1190871/7909_Final_Housing_Needs_Research.pdf/nocache
- RICS (2019) Working Group on Maintenance of Tenement Scheme Property: Final Recommendations Report, RICS, accessed at: <https://www.befs.org.uk/wp-content/uploads/2019/06/Working-Group-on-Maintenance-of-Tenement-Scheme-Property-Final-Recommendations-Report.pdf>
- Robertson, M. (2019) Research project: housing land audits. Edinburgh: Scottish Government.
- Rural Housing Scotland (2017) Geographic analysis of Scottish Government rural completions and investment 2010/17. East Lothian: Rural Housing Scotland.
- Savills (2017) The global financial crisis, 10 years on: How the credit crunch transformed the UK housing market. London: Savills.
- Scottish Empty Homes Partnership (2017) Annual report 2016-17. Edinburgh: Shelter Scotland.
- Scottish Empty Homes Partnership (2018) Annual report 2017-18. Edinburgh: Shelter Scotland.
- Scottish Federation of Housing Associations (2019a) Fuel Poverty Survey 2019: Results, available at: <https://www.sfha.co.uk/mediaLibrary/other/english/46988.pdf>
- Scottish Federation of Housing Associations (2019b) SFHA responds to Scottish Budget announcement, accessed at: <https://www.sfha.co.uk/our-work/policy-category/sub-category/policy-article/sfha-responds-to-scottish-budget-announcement>

- Scottish Federation of Housing Associations (2020) SFHA: Key opportunities missed in budget, accessed at: <https://www.sfha.co.uk/news/news-category/sfha-news/news-article/sfha-key-opportunities-missed-in-budget>
- Scottish Government (2013) Town centre action plan – the Scottish Government response. Edinburgh: Scottish Government.
- Scottish Government (2014) Scottish planning policy. Edinburgh: Scottish Government.
- Scottish Government (2015) Joint Housing Delivery Plan for Scotland. Edinburgh: Scottish Government.
- Scottish Government (2016) More Homes Scotland factsheet. Edinburgh: Scottish Government.
- Scottish Government (2017a) More Homes Scotland progress update. Edinburgh: Scottish Government.
- Scottish Government (2017b) Affordable Housing Supply Programme out-turn report 2015-16. Edinburgh: Scottish Government.
- Scottish Government (2018a) Progress update: More Homes Scotland. Edinburgh: Scottish Government.
- Scottish Government (2018b) Scottish Budget: 2019-20. Edinburgh: Scottish Government.
- Scottish Government (2018c) Sales of social sector housing [online]. Available at: <https://www2.gov.scot/Topics/Statistics/Browse/Housing-Regeneration/HSfS/Sales> [Accessed 20 August 2019].
- Scottish Government (2018d) Scottish House Condition Survey: 2017 key findings. Edinburgh: Scottish Government.
- Scottish Government (2018e) Energy Efficient Scotland. Edinburgh: Scottish Government.
- Scottish Government (2018f) Affordable Housing Supply Programme out-turn report 2016-17. Edinburgh: Scottish Government.
- Scottish Government (2018g) Affordable Housing Supply Programme out-turn report 2017-18. Edinburgh: Scottish Government.
- Scottish Government (2019a) Rural housing projects: list of approvals [online]. Available at: <https://www.gov.scot/publications/rural-housing-projects-list-of-approvals/> [Accessed 19 August 2019].
- Scottish Government (2019b) Help to Buy (Scotland) monitoring information report 2018-2019 [online]. Available at: <https://www.gov.scot/publications/help-to-buy-scotland-monitoring-information-report-2018-2019/> [Accessed 19 August 2019].
- Scottish Government (2019c) Affordable Housing Supply Programme process and procedures. Edinburgh: Scottish Government.
- Scottish Government (2019d) Housing statistics for Scotland [online]. Available at: <https://www2.gov.scot/Topics/Statistics/Browse/Housing-Regeneration/HSfS/NewBuildLA>. [Accessed 20 August 2019].

- Scottish Government (2019e) Growing the economy: Building Scotland Fund [online]. Available at: <https://www.gov.scot/policies/economic-growth/building-scotland-fund/> [Accessed 20 August 2019].
- Scottish Government (2019f) Improving energy efficiency: Proposals to make homes warmer and greener, Available at: <https://www.gov.scot/news/improving-energy-efficiency-1/> [Accessed 30th January 2020]
- Scottish Government (2019g) Housing to 2040: A vision for our Future Homes and Communities, Available at: <https://www.gov.scot/publications/housing-to-2040/> [Accessed 31st January 2020]
- Scottish Government (2019h) Energy Efficiency Standard for Social Housing (ESSH): guidance for social landlords (revised February 2019), Available at: <https://www.gov.scot/publications/energy-efficiency-standard-social-housing-essh-scottish-government-guidance-social-landlords-revised-february-2019/pages/9/> [Accessed 31st January 2020]
- Scottish Government (2019i) Local Housing Strategy Guidance, available at <https://www.gov.scot/publications/local-housing-strategy-guidance-2019/> [Accessed 31st January 2020]
- Scottish Government (2019j) Scotland Performs, National Performance Framework, available at: <https://nationalperformance.gov.scot/what-it> [Accessed 4th January 2020]
- Scottish Government (2019k) Tenement maintenance report: Scottish Government response; available at: <https://www.gov.scot/publications/tenement-maintenance-report-scottish-government-response/>
- Scottish Government (2020a) More Homes: Affordable Housing Supply Programme, available at: <https://www.gov.scot/policies/more-homes/affordable-housing-supply/> [Accessed at 24th February 2020]
- Scottish Government (2020b) Scottish Budget 2020-21, The Scottish Government, February 2020
- Scottish Government (2020c) Coronavirus (COVID-19): Guidance for Private Landlords and Letting Agents; <https://www.gov.scot/publications/coronavirus-covid-19-landlord-and-letting-agent-faqs/>
- Scottish House Condition Survey Team (2018) Scottish House Condition Survey: 2017 Key Findings, available at: <https://www.gov.scot/publications/scottish-house-condition-survey-2017-key-findings/> [Accessed at 31st January 2020]
- Scottish Housing News. (2020) Coronavirus lockdown makes 50,000 affordable homes target 'unlikely', accessed at: <https://www.scottishhousingnews.com/article/coronavirus-lockdown-makes-50-000-affordable-homes-target-unlikely>
- Scottish Parliament Information Centre (2015) Spending review and Autumn statement 2015. Edinburgh: Scottish Parliament Information Centre.
- Serin, B., Kintrea, K. and Gibb, K. (2018) Social housing in Scotland. Glasgow: UK Collaborative Centre for Housing Evidence.
- Shelter Scotland (2019) Housing and homelessness statistics; https://scotland.shelter.org.uk/housing_policy/key_statistics/homelessness_facts_and_research

Smith, S. (2019) New housing and future construction skills: adapting and modernising for growth. Edinburgh: Scottish Government.

SNP (n.d.) Why did the SNP abolish the Right to Buy? [online]. Available at: <https://www.snp.org/policies/pb-why-did-the-snp-abolish-right-to-buy/> [Accessed 20 August 2019].

Subsidy Working Group (2015) Report of the 2015 Subsidy Working Group. Edinburgh: Scottish Government.

The Trussell Trust (2018) The next stage of Universal Credit: Moving onto the new benefit system and foodbank use. Salisbury: The Trussell Trust.

Webster, D. (2018) Benefits sanctions statistics. Glasgow: University of Glasgow.

Young, G. and Donohoe, T. (2018) Review of strategic investment plans for affordable housing. Edinburgh: Shelter Scotland and SFHA.

Table A1: National Records of Scotland Household Projections for Scotland, 2016-based (5 year intervals)

Area	2021	2026	2031	2036	2041
Scotland	2,534,461	2,603,641	2,665,854	2,719,130	2,763,089
Aberdeen City	110,563	113,128	116,014	119,020	121,665
Aberdeenshire	114,996	119,431	123,195	126,270	128,752
Angus	54,658	55,705	56,524	57,079	57,434
Argyll and Bute	41,679	41,531	41,173	40,694	40,128
City of Edinburgh	245,348	257,994	270,396	281,754	291,764
Clackmannanshire	23,958	24,228	24,266	24,219	24,075
Dumfries and Galloway	70,149	70,563	70,665	70,544	70,418
Dundee City	71,273	72,385	73,752	75,229	76,541
East Ayrshire	55,612	56,196	56,515	56,628	56,585
East Dunbartonshire	46,973	48,400	49,829	51,142	52,203
East Lothian	47,493	50,070	52,472	54,628	56,574
East Renfrewshire	40,321	42,150	44,111	46,000	47,649
Falkirk	74,114	76,556	78,799	80,658	82,073
Fife	170,435	173,678	176,677	178,732	180,308
Glasgow City	302,106	310,742	319,432	328,242	335,927
Highland	110,663	112,902	114,511	115,350	115,822
Inverclyde	37,656	37,405	37,058	36,519	35,827
Midlothian	40,843	43,618	46,411	49,049	51,544
Moray	43,784	45,393	46,805	48,030	49,153
Comhairle nan Eilean Siar	12,829	12,776	12,652	12,443	12,186
North Ayrshire	64,219	64,280	64,026	63,591	63,049
North Lanarkshire	154,834	158,375	161,154	163,147	164,319
Orkney Islands	10,612	10,821	10,921	10,991	11,048
Perth and Kinross	69,847	72,266	74,211	75,698	77,132
Renfrewshire	87,224	89,527	91,603	93,434	94,958
Scottish Borders	55,342	56,497	57,222	57,770	58,181
Shetland Islands	10,545	10,722	10,847	10,903	10,891
South Ayrshire	52,763	53,260	53,491	53,367	53,111
South Lanarkshire	148,879	152,891	156,193	159,020	161,318
Stirling	40,756	42,246	43,602	44,801	45,961
West Dunbartonshire	43,253	43,642	43,965	44,191	44,149
West Lothian	80,734	84,262	87,361	89,987	92,340

Table A2: Number and proportion of households in Scotland in 2021 by local authority classification

Area	Number of households 2021	Percentage of all households in Scotland 2021
1 Capital region	640,195	25%
2 West Central	770,631	30%
3 Tayside and North East	465,121	18%
4 Highlands, Islands and West	309,240	12%
5 Central	349,274	14%
Scotland	2,534,461	100%

Source: National Records of Scotland, 2019

Table A3: Household principal projections by local authority classification (5 year intervals)

Area	2021	2026	2031	2036	2041
1 Capital region	640,195	666,119	690,539	711,920	730,711
2 West Central	770,631	789,037	806,217	822,139	835,080
3 Tayside and North East	465,121	478,308	490,501	501,326	510,677
4 Highlands, Islands and West	309,240	312,575	314,260	314,292	313,604
5 Central	349,274	357,601	364,336	369,453	373,013
Scotland	2,534,461	2,603,640	2,665,853	2,719,130	2,763,085

Source: National Records of Scotland, 2019

Table A4: Household principal projections: proportionate growth by local authority classification (5 year intervals)

Area	2021 (households)	2026	2031	2036	2041
1 Capital region	640,195	4%	8%	11%	14%
2 West Central	770,631	2%	5%	7%	8%
3 Tayside and North East	465,121	3%	5%	8%	10%
4 Highlands, Islands and West	309,240	1%	2%	2%	1%
5 Central	349,274	2%	4%	6%	7%
Scotland	2,534,461	3%	5%	7%	9%

Source: National Records of Scotland, 2019

Table A5: High migration variant household projections by local authority classification (5 year intervals)

Area_High	2021	2026	2031	2036	2041
1 Capital region	644,799	677,319	709,050	738,380	765,832
2 West Central	774,743	799,126	822,936	846,049	866,939
3 Tayside and North East	468,260	485,969	503,147	519,367	534,635
4 Highlands, Islands and West	310,419	315,538	319,302	321,662	323,480
5 Central	350,305	360,314	369,033	376,469	382,656
Scotland	2,548,526	2,638,266	2,723,468	2,801,927	2,873,542

Source: National Records of Scotland, 2019

Table A6: High migration variant projections: proportionate growth by local authority classification

Area_High	2021 (households)	2026	2031	2036	2041
1 Capital region	644,799	5%	10%	15%	19%
2 West Central	774,743	3%	6%	9%	12%
3 Tayside and North East	468,260	4%	7%	11%	14%
4 Highlands, Islands and West	310,419	2%	3%	4%	4%
5 Central	350,305	3%	5%	7%	9%
Scotland	2,548,526	4%	7%	10%	13%

Source: National Records of Scotland, 2019

Table A7: Low migration variant household projections by local authority classification (5 year intervals)

Area_Low	2021	2026	2031	2036	2041
1 Capital region	635,577	654,917	672,156	685,556	695,596
2 West Central	766,537	779,072	789,741	798,501	803,521
3 Tayside and North East	462,022	470,637	477,727	483,071	486,470
4 Highlands, Islands and West	308,048	309,636	309,312	307,188	304,062
5 Central	348,172	354,677	359,214	361,912	362,798
Scotland	2,520,356	2,568,939	2,608,150	2,636,228	2,652,447

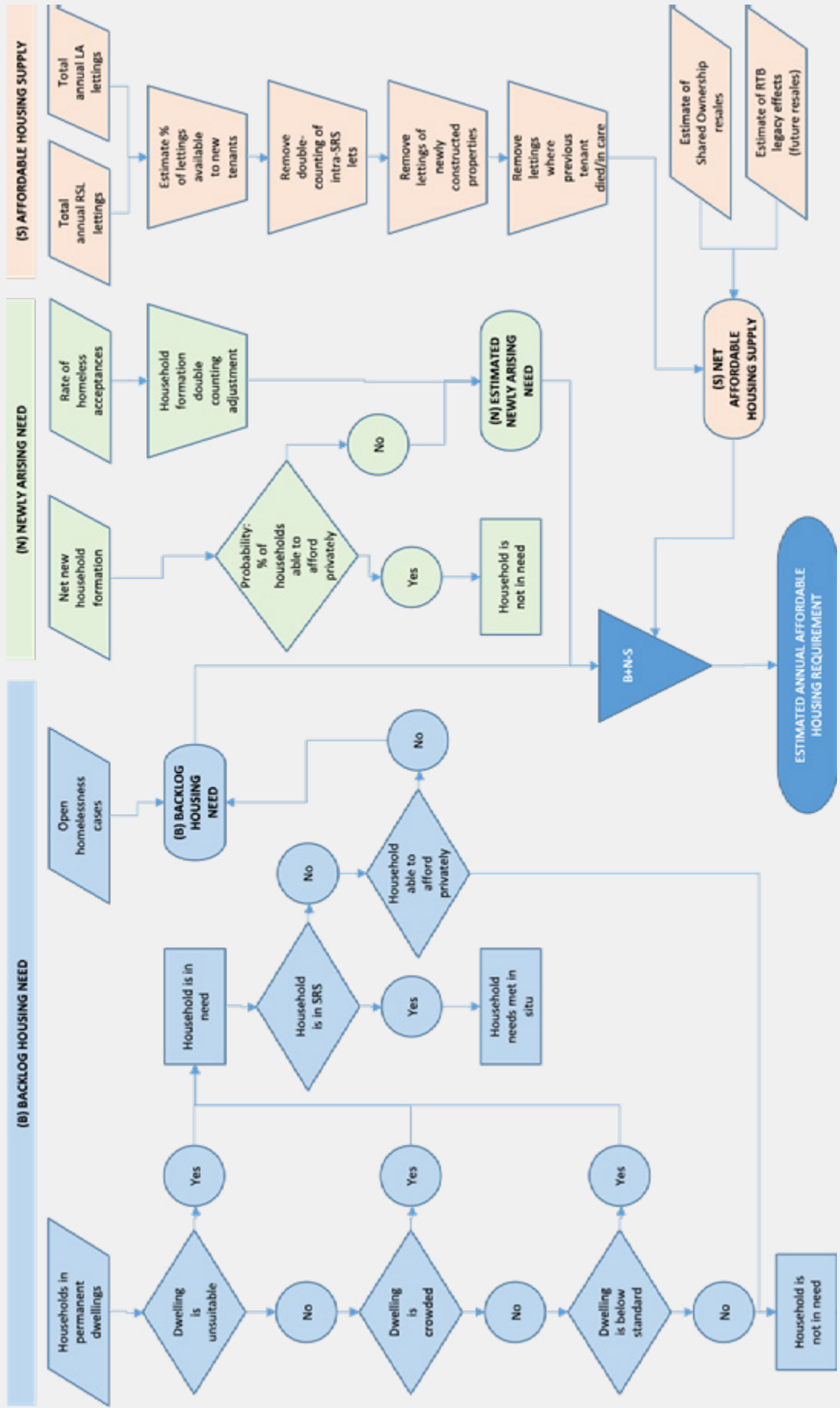
Source: National Records of Scotland, 2019

Table A8: Low migration variant projections: proportionate growth by local authority classification (5 year intervals)

Area_Low	2021 (households)	2026	2031	2036	2041
1 Capital region	635,577	3%	6%	8%	9%
2 West Central	766,537	2%	3%	4%	5%
3 Tayside and North East	462,022	2%	3%	5%	5%
4 Highlands, Islands and West	308,048	1%	0%	0%	-1%
5 Central	348,172	2%	3%	4%	4%
Scotland	2,520,356	2%	3%	5%	5%

Source: National Records of Scotland, 2019

Figure A1: Flow chart of basic calculation steps in model.



Affordable Housing Need in Scotland post-2021

This report presents the findings from research conducted in 2019 which sought to estimate the need for affordable housing in Scotland between 2021 and 2026. The research was commissioned by the Scottish Federation of Housing Associations (SFHA), Shelter Scotland and the Chartered Institute of Housing (CIH) Scotland. The study updates a previous, similar exercise conducted in 2015 by the research team.

The purpose of this research is to: arrive at an estimate which can inform the scale of affordable housing need nationally; and assess the extent to which Scottish Government housing spending plans can address this need. The focus is therefore on a Scotland-wide estimate of affordable housing need which can inform housing policy and debate across the sector.

This report was commissioned by:

Scottish Federation of Housing Associations – www.sfha.co.uk

Chartered Institute of Housing Scotland – www.cih.org/scotland

Shelter Scotland – scotland.shelter.org.uk

