sovereign

Strategic Review

How affordable are different housing options in our marketplace?

January 2014

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Early in 2014, we undertook a strategic review to set Sovereign's direction for the next three years. We carried out a series of research projects to help inform these decisions.

This research project investigated what drives affordability of housing products for different household types, both in work and out of work, across our operating areas. It uses the concept of living income (the amount available after housing costs) to compare the outcomes for households in different housing options.

Affordability is a complex area. This research offers more sophistication than most existing published work on housing affordability, particularly by differentiating household types as well as geography.

Key findings

Affordability by housing product:

- For households who rely on tax credits and housing benefit, there is no immediate financial benefit of being in a cheaper rented product. However, the higher the rent levels, the more benefit dependent the household becomes, carrying a greater risk to Sovereign given ongoing housing benefit cuts and the prospect of direct payments under Universal Credit.
- Cheaper rented products enable working households to escape benefit dependency at a lower income than might otherwise be the case, and to benefit more from increases in income.
- Shared ownership and outright ownership are affordable to specific household groups, but only when there is at least one adult in full time employment.

Affordability by geography:

- There is little geographical variation in living income for households who rely on tax credits and housing benefit.
- Once households earn enough to move off benefits, living incomes tend to be higher in more expensive areas as the earnings potential outweighs the additional housing costs.

- Those looking to own outright may have to look at less expensive areas in order to be able to get a mortgage. Areas such as Swindon offer cheap property prices but reasonable wage levels and therefore higher living incomes, whereas Christchurch and Bristol have lower wages but significantly higher property prices.

Affordability by household type:

- Household composition is the single biggest driver of affordability. In general, couples have greater earnings potential and therefore more housing choice.
- In our models, lone parents are benefit dependent even at a median income and present a risk to Sovereign due to ongoing welfare cuts. They are financially no better off being in general needs than market rent although higher rents push them further into the poverty trap. This, coupled with childcare concerns and the loss of some passported benefits, may mean some lone parents feel better off out of work.
- Couples with children in work are likely to have much more housing choice and are less reliant on benefits. Lower earners will see a financial benefit of being in general needs as the low rent means they are less reliant on benefit. But they are no better off in affordable rent than they are in market rent. Median income couples with children are likely to be able to afford to own outright at median property prices; low earning couples with children who aspire to ownership may be better in shared ownership, where the up-front costs are more accessible.
- Single people on lower quartile earnings or a median income will benefit from cheaper rents as they don't receive any benefits. Outright ownership is not likely to be affordable for this group but shared ownership could be depending on the area.
- Couples without children are most likely household type to be able to afford to own outright, but this is mainly because they can live in a one bed property. Buying a bigger property becomes an issue in terms of up-front costs, and shared ownership may be a more viable option if they need a larger property.
- For households with no children, the impact of being in or out of work is dramatic in terms of income and housing affordability. If a lower quartile earning single person lost their job, they would receive less than a third of the income they were earning – as little as £72 a week. If a lower quartile earning couple both lost their job, they would receive in benefits just 20% of the income they were earning – as little as £113 a week.

Affordability for those out of work:

- Although no housing options are truly affordable to those out of work, the low costs of general needs rent present a significantly lower hurdle than other options in terms of an aspiration to escape benefit dependency.

The poverty trap

- The poverty trap is a problem for those who rely on benefits to live. When a household is in the poverty trap there is a disincentive to work additional hours as additional earnings are offset significantly by reductions in benefits. The amount of extra earnings needed to come off of benefits and to feel better off depends on the household type.
- Lone parents on low earnings are benefit dependent. There is little incentive for this group to work beyond 16 hours a week (the point at which they are eligible for working tax credits) as they will see very little of any extra earnings. A lone parent working 16 hours at the minimum wage would earn £101 a week net; to come off housing benefit for a product costing £100 a week in rent, they would need to earn £255 a week, which is 40 hours on the minimum wage. Even then they would still be entitled to tax credits.

Impact of Universal Credit

- This report focuses on households claiming current state benefits. It looks at snapshots of data at particular income levels; out of work, lower quartile earnings and median incomes. The purpose of Universal Credit is to provide work incentives as peoples earning levels change, by smoothing out the marginal deduction of benefits as earnings increase. So the intention is to ease the transition between the different snapshot points, but this will not, in itself, alter the findings in this report in relation to each household type.
- The main difference will be for benefit dependent in-work households, who currently have an incentive to work 16 hours a week but little incentive to work more hours on top of that. Universal Credit will smooth out this benefit ‘cliff edge’ and may make the poverty trap feel a little less like a trap.

Contents

1. Background

Early in 2014, Sovereign undertook a strategic review to set the organisation's direction for the next three years. The balance between activities motivated by commercial considerations, and those aimed at achieving social outcomes were a key consideration within this review.

The work described in this report formed one part of a wider project, aimed at understanding the cost and value of Sovereign's 'products'. Its partner projects were focused on:

Type of project	Strategic research project
Understanding the housing market	**Housing Market Prices** - At what price are different housing options available? **Housing Market Affordability** - What housing options can people afford?
Understanding Sovereign's housing products	**Cost and revenue of our products** and **social value definitions** - What is the value of our current products to the tenant, Sovereign and to society? **Current residents' needs and aspirations** - Who are our tenants and what are their housing needs and aspirations?

This strategic research project specifically looks at developing our understanding of what housing choices are affordable to our current and future customers.

Our early analysis told us that the composition of the household has a significant impact on affordability and this is an aspect often ignored by the more traditional methods of measuring affordability. We decided to focus our research on what different households could afford, but decided against setting a threshold (i.e. housing costs being less than 35% of income) as we felt this was too black and white and didn't give us a useful comparison point (see Section 2.2: Housing options by geography).

Instead, the key metric we decided to use that features throughout this report is a households' '**living income'**. This is calculated by taking the net weekly income of the household (including benefits that supplement earnings) and subtracting housing costs. By housing costs, we mean the true housing cost to the individual, so if they receive housing benefit we deduct this. The equation is shown below:

Living income = Total net income – Net housing cost

where

Total net income = Net earnings + income supplements (such as tax credits) + child benefit

Net housing cost = total housing cost – housing benefit

By using this figure we do not explicitly say if a housing option is affordable, but instead provide a comparison point for a judgement on whether this living income is reasonable for a particular household.

Throughout the findings section of the report we focus on two groups of households:

- The first group looks at a typical household in low paid work, making assumptions about whether the adults are in full and part time work depending on the household composition and using the appropriate lower quartile earnings data by geography. Tax credits and child benefits are added to the lower quartile earnings data to give an overall income.
- The second group uses a dataset that provides median incomes by geography. It has already factored in the additional benefits and includes households out of work (including pensioners). So it is more indicative of the population of the particular household type in an area. It is also worth noting that because the median income group contains those out of work the median income figures are not necessarily going to be higher than the lower quartile earnings data, which specifically looks at those in work.

We designed a separate model with different assumptions for each of these groups as they have such distinctive methodologies, recognising the different factors that influence their living incomes.

However, we also need to consider affordability for those out-of-work households who are a significant part of our customer base. These households have their rent paid in full by housing benefit, so the question of affordability relates more to their ability to escape benefit dependency than their ability to afford their rent. However, this situation is changing with welfare reform and is explored in more detail in section 4.

In terms of geography, we focused on areas which have the greatest concentration of our stock, as these areas are most relevant to our business and will be most familiar to an internal audience. These are the following 14 local authorities:

> Basingstoke and Deane, Bristol, Christchurch, Plymouth, Reading, South Gloucestershire, South Oxfordshire, Swindon, Test Valley, Vale of White Horse, West Berkshire, West Oxfordshire, Wiltshire and Winchester

The report now moves on to our findings, but more detail of our methodology can be found in the Technical Appendix.

2. Analysis of different households

In this section we look at typical household types and try and understand what products they could potentially afford, where in our geography they would be better off living and how much better off the household is in work than out of work.

We look at four different household types; lone parents, couples with children, single people and couples without children. Each section follows the same structure:

- Key findings for the particular household type
- The household's income both for low earning and median income households
- The household's living income, including tables A & B, which compare living income by rented product for low earning and median income households.
- Housing options by geography, including table C which shows the living incomes for median income households by our key local authority areas for all products. Table D shows how much a median income household may be allowed to borrow for ownership and therefore what deposit they'd need.
- Finally an analysis of whether the living income is a reasonable amount to live on, with table E comparing living incomes of low earning households.

2.1. Lone parents

Key findings

- Lone parents on low and median earnings receive the maximum entitlement of tax credits and these tax credits make up the majority of their income.
- Lone parents in part time work will have a living income spike when they work 16 hours a week and therefore entitled to working tax credits. There is little incentive to work more than 16 hours while on benefits because extra earnings are significantly offset by benefit reductions.
- Living income for both low earning and median income lone parents will be the same across all rented products because of the benefits they receive.
- However, the higher the rent levels, the more benefit dependent the household becomes, which pushes the household further into the poverty trap and creates a greater risk to Sovereign given ongoing housing benefit cuts and the prospect of direct payments under Universal Credit.
- There is very little geographical variation in living incomes of lone parents on low earnings, assuming they work 16 hours a week. There is more variation for those one median incomes but we see greater variation with other household types.
- Shared or outright ownership is not affordable for lone parents on low earnings or median incomes.
- Childcare concerns and the loss of some passported benefits may mean some lone parents *feel* better off out of work.

What is their income?

Lone parents on low earnings or median incomes are reliant on benefits even with only one child. They receive the maximum entitlement of tax credits and these tax credits make up the majority of their income. We have assumed in our low earnings model that our lone parents work part-time.

To be entitled to working tax credits, they must work at least 16 hours a week, and by doing so they are entitled to an extra £75 a week (assuming they work less than 30 hours). This extra entitlement creates a so-called ‘cliff edge’ for low earners who lose out significantly if they fall below 16 hours work.

Hourly rates for low earning part time workers tend toward the minimum wage of £6.31, with the lowest being £6.40 in Plymouth, up to £7.41 in South Oxfordshire.

Looking at lone parents on median income, there is a wider variation with weekly net income in Plymouth of £230 compared with £336 in South Oxfordshire. This is partly due to the higher earnings in South Oxfordshire but we also know from public data that people are more likely to be in employment in South Oxfordshire than Plymouth (79% v 70%), which is likely to drive up median incomes.

What is their living income?

Lone parents will be entitled to housing benefit for any rented product if they are on low earnings or median incomes. If the lone parent is in work, they are likely to receive partial housing benefit and will have to pay a small proportion of the rent. However, the way housing benefit works, living income for a low earning lone parent will be the same across all rented products, as shown below.

Table 2.1A: Living income for a lower quartile earning household, by product

Housing product	Net Earnings +	Tax Credit +	Child Benefit −	Housing cost −	Housing benefit =	Living Income
General Needs	£112	£190	£34	£106	£80	£310
Affordable rent	£112	£190	£34	£147	£121	£310
Market rent	£112	£190	£34	£184	£158	£310

Weekly data for a lone parent with two children, in a 2 bed house in Basingstoke

The same is true for those on median incomes:

Table 2.1B: Living income for a median income household, by product

Housing product	Net Income −	Housing cost −	Housing benefit =	Living Income
General Needs	£331	£106	£81	£308
Affordable rent	£331	£147	£124	£308
Market rent	£331	£184	£161	£308

Weekly data for a lone parent with two children, in a 2 bed house in Basingstoke

While it makes no immediate financial difference to a benefit dependent lone parent family which rented product they live in, the more expensive products increase how much housing benefit they receive, which in turn increases the risk to Sovereign given ongoing benefit cuts and the potential move to direct payments through welfare reform.

There is also a more long term disadvantage to a household; while a household is on benefits, additional earnings will be significantly offset by a reduction in benefit, therefore a disincentive to work. This also is a risk for Sovereign as if the household is having financial difficulties; working extra hours may not be an effective solution. Higher rents increase the distance a household is from being benefit independent. Section 3.1 looks at this 'poverty trap' in more detail.

Housing options by geography

There is very little geographical variation in living incomes of lone parents on low earnings, assuming they work 16 hours a week, with a range of just £6 from £312 in South Oxfordshire to £306 in Plymouth.

There is more geographical variation in living incomes for those on median incomes. Table 2.1C represents the living income value with the red shading showing the lowest living income with the green shades showing the highest living incomes. As shown previously there is no variation in living income between rented products. The geographical variation in living income for all rented products ranges by £80, from £310 in South Oxfordshire to £230 in Plymouth. Looking at the data more closely, there are 3 local authorities with particularly low living incomes (Bristol, Christchurch and Plymouth) and these are the three areas with the lowest net income.

There appears to be a positive correlation between living income and weekly housing costs, with those living in the more expensive areas generally having higher living incomes. This is explored more closely in section 2.2, which looks at couples with children, where this trend is more pronounced.

Table 2.1C: Living income for median income households by Local Authority

		Living Income				
Location	Net income	General Needs	Affordable rent	Market rent	Shared ownership	Outright sale
Basingstoke and Deane	£331	£308	£308	£308	£196	£161
Bristol	£257	£257	£257	£257	£127	£93
Christchurch	£241	£241	£241	£241	£90	£50
Plymouth	£230	£230	£230	£230	£135	£111
Reading	£306	£299	£299	£299	£166	£130
South Gloucestershire	£289	£289	£289	£289	£171	£140
South Oxfordshire	£336	£310	£310	£310	£174	£132
Swindon	£286	£286	£286	£286	£190	£166
Test Valley	£308	£300	£300	£300	£179	£145
Vale of White Horse	£323	£305	£305	£305	£177	£139
West Berkshire	£330	£308	£308	£308	£180	£141
West Oxfordshire	£311	£301	£301	£301	£165	£127
Wiltshire	£280	£280	£280	£280	£163	£132
Winchester	£324	£305	£305	£305	£150	£104

Weekly data for a lone parent with two children, in a 2 bed property

The shared ownership and outright sale weekly living incomes are based on the following assumptions:

Shared Ownership variables	
Initial sale	40%
Deposit	10%
Mortgage Rate	5%
Mortgage Term	25
RSL Rents	2.50%

Outright sales variables	
Deposit Level	20%
Mortgage Rate	4%
Mortgage Term	25

We exclude any form of housing benefit for shared ownership and outright sale, which explains why the household is left with significantly less living income in the ownership options. Regardless of living income, any form of ownership is unrealistic for this household type at either low or average earnings as they would not meet affordability criteria and would need a deposit of between 45% and 72%.

Table 2.1D: How much a median income household may be allowed to borrow for ownership

Location	Gross annual median income	Mortgage at 3.5 times income	Median price for 2 bed	Deposit needed for 2 bed
Basingstoke and Deane	£22,861.54	£80,015	£175,000	54%
Bristol	£17,157.04	£60,050	£168,500	64%
Christchurch	£15,944.63	£55,806	£196,250	72%
Plymouth	£15,095.45	£52,834	£123,000	57%
Reading	£20,931.33	£73,260	£181,250	60%
South Gloucestershire	£19,650.15	£68,776	£154,000	55%
South Oxfordshire	£23,241.46	£81,345	£210,000	61%
Swindon	£19,360.36	£67,761	£123,500	45%
Test Valley	£21,081.74	£73,786	£167,500	56%
Vale of White Horse	£22,221.20	£77,774	£189,000	59%
West Berkshire	£22,777.47	£79,721	£195,000	59%
West Oxfordshire	£21,329.38	£74,653	£190,000	61%
Wiltshire	£18,923.35	£66,232	£152,000	56%
Winchester	£22,304.12	£78,064	£226,000	65%

Data for a lone parent with two children

Is the living income a reasonable amount to live on?

Table 2.1E shows a comparison between the living income of a typical low earning lone parent household in general needs compared with what a similar out of work household would receive in Job Seekers Allowance, Child Tax Credit and Child Benefit. While this table shows a financial benefit for being in work, this model doesn't take into account issues like childcare and the loss of some passported benefits when claiming working tax credit. These impacts can have an effect on both whether the household is, but also *feels* better off in work than on benefits.

Table 2.1E: Living income compared to equivalent benefit income for different lone parent households in general needs

Household composition	Living Income	Benefit Income	Difference
Lone parent, one child (2 bed)	£234	£155	£79
Lone parent, two children (2	£309	£220	£89
Lone parent, three children (3	£383	£286	£97

Weekly living income data shown is an average of the living income of low earners across the local authorities

2.2. Couples with children

Key findings

- Earning variation is much higher at median incomes as households start to come off tax credits.
- There is a marginal financial benefit of being in general needs for a low earning couple with two children; this benefit is more significant to those on median incomes, who do not get housing benefit when living in more expensive products. Low earners are no better off on affordable rent than they are on market rent.
- There is also only a marginal difference in living incomes geographically for lower earners; again this difference is more acute for median income households.
- On median incomes, those living in the more expensive areas tend to have higher living incomes, suggesting the earnings potential outweighs the additional weekly housing costs.
- Weekly living incomes in shared ownership tend to be higher than affordable rents: similarly weekly living incomes in outright ownership tend to be higher than market rents. This is true across all household types.
- Median income couples with children are likely to be able to afford to own outright at median prices; low earning couples with children who aspire to ownership may be better in shared ownership, where the up-front costs are less.
- The financial benefits of being a couple compared to a lone parent are much more significant in work than out of work.

What is their income?

Couples with children in our lower quartile earnings model have one adult in full time employment and one in part time employment. They will receive tax credits but the amount they receive depends on their earnings and it will be a much smaller proportion of their overall income compared with lone parents, as their earnings are higher.

We see a greater range in incomes at the median level because there is less reliance on tax credits, which reduce income variation. For a couple with two children using our lower quartile earnings model, the total net income (including tax credits) ranges from £517 in Plymouth to £570 in Winchester, a £53 difference. Looking at our median income model, the range is £245; from £530 in Plymouth to £775 in South Oxfordshire.

What is their living income?

A low wage couple with two children in Basingstoke in a general needs property will not be eligible for housing benefit; they will however become eligible for partial housing benefit under affordable and market rents.

This means that there is a financial benefit for the household of being in a general needs property equal to £22 a week, but no extra financial benefit of paying affordable rents instead of market rent, despite it being £37 a week cheaper.

Table 2.2A: Living income for a lower quartile earning household, by product

Housing product	Net Earnings +	Tax Credit +	Child Benefit −	Housing cost −	Housing benefit =	Living Income
General Needs	£442	£44	£34	£106	£0	£413
Affordable rent	£442	£44	£34	£147	£19	£391
Market rent	£442	£44	£34	£184	£56	£391

Weekly data for a couple with two children, in a 2 bed house in Basingstoke

Only in areas where earnings are particularly low will median income households be eligible for housing benefit. So for these families all of the financial benefit of being in a lower rent product is passed directly to the tenant. In Basingstoke, the benefit of living in a general needs product is £42 a week compared to affordable rent and £78 a week compared to market rent.

Table 2.2B: Living income for a median income household, by product

Housing product	Net Income −	Housing cost −	Housing benefit =	Living Income
General Needs	£764	£106	£0	£658
Affordable rent	£764	£147	£0	£616
Market rent	£764	£184	£0	£580

Weekly data for a couple with two children, in a 2 bed house in Basingstoke

Housing options by geography

As we have seen before, the way benefits are designed levels out geographical variation on lower earnings. In the example of a couple with two children on lower quartile earnings, the difference in living income on market rents ranges from £409 in Winchester to £390 in Plymouth, a range of just £19. This range is slightly wider for general needs, at £39, because there is no housing benefit claim.

There is much more variation on median incomes as the only households that receive housing benefit are those in Plymouth and Christchurch under market rents. The range for this group in general needs is £224, from £673 in South Oxfordshire to £459 in Christchurch.

Table 2.2C: Living income for median income households by Local Authority

Location	Net income	Living Income				
		General Needs	Affordable rent	Market rent	Shared ownership	Outright sale
Basingstoke and Deane	£764	£658	£616	£580	£629	£594
Bristol	£592	£498	£454	£420	£462	£428
Christchurch	£556	£459	£418	£404	£404	£365
Plymouth	£530	£460	£421	£395	£435	£411
Reading	£706	£591	£545	£504	£566	£530
South Gloucestershire	£667	£576	£543	£512	£548	£517
South Oxfordshire	£775	£673	£614	£574	£613	£571
Swindon	£658	£563	£553	£526	£563	£538
Test Valley	£710	£611	£577	£543	£581	£547
Vale of White Horse	£744	£647	£588	£549	£598	£561
West Berkshire	£761	£650	£609	£571	£611	£572
West Oxfordshire	£717	£620	£571	£535	£571	£533
Wiltshire	£645	£554	£530	£501	£528	£498
Winchester	£747	£635	£586	£546	£572	£527

Weekly data for a couple with two children, in a 2 bed property

There is a positive correlation here; the higher the net weekly income, the higher the living income. Those living in the more expensive areas generally have higher living incomes, which means net income increases at a faster rate than housing costs or, put another way, the earnings potential outweighs the additional housing costs.

Digging a little deeper we can see the limitation of one of the more traditional measure of measuring affordability; the proportional measure. Looking at market rents, we can see that there is little difference in the affordability percentage between Basingstoke and Plymouth, both have housing costs at roughly a quarter of their net income, so both are affordable by the common 35% measure. But clearly this is much more affordable for the household in Basingstoke & Deane, whose living income is £185 a week higher.

Comparison of proportional measure and living income on a market rented property on median incomes

Housing product	Net Income	Housing cost	Affordability percentage	Living Income
Basingstoke & Deane	£764	£184	24%	£580
Plymouth	£530	£137	26%	£395

Weekly data for a couple with two children, in a 2 bed house

To balance this a little, it could be argued that the living costs in these areas will be higher; to a point this is true although a lot of household costs are set at national rates. For someone in an urban area with access to national supermarkets and less travel costs, there won't be much difference in living costs across our areas, except for a few obvious costs like council tax, which is linked to property value. For those in more rural areas, who rely on local shops and local fuel to travel, there is likely to be greater variation in living costs, with higher costs likely in more expensive areas.

In most cases the living income for those in shared ownership is higher than those in affordable rent; similarly the living income in outright ownership is higher than market rent. This trend is true across all household types that are not reliant on benefits.

However, this only factors in the weekly cost; clearly there is an upfront cost in terms of a deposit (as well as costs of buying such as conveyancing fees). While the living income for a couple with two children for outright ownership suggests it is an affordable option, the table below shows that in some areas the household would need a significant deposit.

There is a big variation in both gross median incomes and median house prices, and the data shows that they are not as correlated as we might expect. For example, Christchurch has the second lowest income but the third highest house prices. Therefore median income couples with children in this area would need a deposit of 34%, compared to other areas where they would be able to get a mortgage to cover the price of the property (accepting that in most cases a mortgage lender would still require a deposit).

Table 2.2Da: How much a median income household may be allowed to borrow for ownership

Location	Gross annual median income	Mortgage at 3.5 times income	Median price for 2 bed	Deposit needed for 2 bed
Basingstoke and Deane	£52,708.56	£184,480	£175,000	0%
Bristol	£39,556.51	£138,448	£168,500	18%
Christchurch	£36,761.23	£128,664	£196,250	34%
Plymouth	£34,803.40	£121,812	£123,000	1%
Reading	£48,258.34	£168,904	£181,250	7%
South Gloucestershire	£45,304.52	£158,566	£154,000	0%
South Oxfordshire	£53,584.48	£187,546	£210,000	11%
Swindon	£44,636.39	£156,227	£123,500	0%
Test Valley	£48,605.13	£170,118	£167,500	0%
Vale of White Horse	£51,232.21	£179,313	£189,000	5%
West Berkshire	£52,514.72	£183,802	£195,000	6%
West Oxfordshire	£49,176.07	£172,116	£190,000	9%
Wiltshire	£43,628.85	£152,701	£152,000	0%
Winchester	£51,423.40	£179,982	£226,000	20%

Data for a couple with two children

Low earning couples with children are less likely to be able to afford outright ownership. The weekly costs appear manageable and would leave the household with a living income of between £395 and £413 a week depending on location. However, getting a mortgage in most cases does not appear possible without a significant deposit. The areas which appear more affordable in terms of ownership are in Plymouth and Swindon, where house prices are lowest. The other alternative is for the household to go for a lower than median priced property which could make the up-front costs cheaper, but clearly this comes at a cost in terms of things like quality of home.

This suggests that shared ownership may be a good solution for low earning couples with children; the up-front costs won't be as high and the ongoing costs are affordable.

Table 2.2Db: How much a lower quartile earning household may be allowed to borrow for ownership

Location	Gross annual lower quartile income	Mortgage at 3.5 times income	Median 2 bed	Deposit needed for 2 bed
Basingstoke and Deane	£29,161.80	£102,066	£175,000	42%
Bristol	£27,738.24	£97,084	£168,500	42%
Christchurch	£28,377.61	£99,322	£196,250	49%
Plymouth	£26,777.96	£93,723	£123,000	24%
Reading	£28,985.08	£101,448	£181,250	44%
South Gloucestershire	£28,339.57	£99,188	£154,000	36%
South Oxfordshire	£29,718.94	£104,016	£210,000	50%
Swindon	£27,918.64	£97,715	£123,500	21%
Test Valley	£28,778.30	£100,724	£167,500	40%
Vale of White Horse	£30,115.94	£105,406	£189,000	44%
West Berkshire	£28,199.06	£98,697	£195,000	49%
West Oxfordshire	£29,514.00	£103,299	£190,000	46%
Wiltshire	£27,538.82	£96,386	£152,000	37%
Winchester	£30,590.87	£107,068	£226,000	53%

Lower quartile earnings data for a couple with two children, including tax credits

Is the living income a reasonable amount to live on?

This table provides interesting comparisons to table 2.1E. The difference between the living income and benefit income for a couple with two children is twice as high as that for a lone parent with two children.

This is primarily driven by the difference in living incomes: a couple with two children is £107 better off in terms of living income than a lone parent with two children, but only £41 better off on benefit income. The financial benefits of being a couple compared to a lone parent are more significant in work than out of work.

Table 2.2E: Living income compared to equivalent benefit income for different couple with children households

Household composition	Living Income	Benefit Income	Difference
Couple, one child (2 bed)	£357	£196	£161
Couple, two children (2 bed)	£416	£261	£155
Couple, three children (3 bed)	£481	£327	£154

Weekly living income data shown is an average of the living income of low earners across the local authorities in a general needs property

2.3. Single people

Key findings

- A single person in full time work on lower quartile earnings is better off than one on a median income.
- A single person on lower quartile earnings or a median income will benefit from cheaper rents as they don't receive any benefits.
- Again we see that those living in the more expensive areas generally have higher living incomes.
- Median income single people are unlikely to be able to afford a mortgage to buy outright, although less expensive properties in cheaper areas may be accessible, as could shared ownership.
- If a lower quartile earning single person lost their job, they would receive less than a third of the income they were earning – as little as £72 a week.

What is their income?

Single people on lower quartile earnings are not entitled to working tax credits. Variation in net income for this household type on lower earnings is therefore more pronounced, from £358 in Winchester to £283 in Plymouth; a range of £75.

Interestingly, the median income model in most cases gives us lower incomes than the lower quartile earnings model. This sounds counterintuitive, but the model uses a different methodology that compares average incomes across different household groups, looking at all situations, not just those in full time work. So, a single person in full time work on lower quartile earnings is better off than the average (median) single person. The range for this group is £103, from £327 in South Oxfordshire to £224 in Plymouth.

This indicates that in reality there must be different working patterns for single people of working age; either that they work less hours or that they are happier taking lower paid jobs, but it is certainly an area that would benefit from further analysis.

What is their living income?

A single person both on low earnings or a median income will not receive housing benefit, so again all of the financial benefit of being in a lower rent product is passed directly to the tenant. In Basingstoke, the benefit of living in a general needs product for a low earner is £29 a week compared to affordable rent and £59 a week compared to market rent. This is replicated in table 2.3B, albeit with a slightly lower overall living income and the market rent household just reaching the point where they are entitled to housing benefit.

Table 2.3A: Living income for a lower quartile earning household, by product

Housing product	Net Earnings +	Tax Credit +	Child Benefit −	Housing cost −	Housing benefit =	Living Income
General Needs	£330	£0	£0	£90	£0	£239
Affordable rent	£330	£0	£0	£120	£0	£210
Market rent	£330	£0	£0	£149	£0	£180

Weekly data for a single person, in a 1 bed property in Basingstoke

Table 2.3B: Living income for a median income household, by product

Housing product	Net Income	Housing cost	Housing benefit	Living Income
General Needs	£322	£90	£0	£232
Affordable rent	£322	£120	£0	£202
Market rent	£322	£149	£1	£173

Weekly data for a single person, in a 1 bed property in Basingstoke

Housing options by geography

Single person households earning lower quartile wages will not receive housing benefit for any rented product (except for the lowest earning areas under market rents) nor will they receive tax credits. This means there will be more geographical variation in living incomes for single people than households with children. The living income range for lower quartile earners in general needs is £49, from £267 in the Vale down to £218 in Bristol.

This follows the pattern that those living in the more expensive areas generally have higher living incomes, which is the same for single people on median incomes. In this case the range in general needs properties is £88, from £238 in South Oxfordshire to £150 in Christchurch.

Table 2.3C: Living income for median income households by Local Authority

		Living Income				
Location	**Net income**	**General Needs**	**Affordable rent**	**Market rent**	**Shared ownership**	**Outright sale**
Basingstoke and Deane	£322	£232	£202	£173	£225	£199
Bristol	£250	£166	£148	£148	£153	£128
Christchurch	£234	£150	£143	£143	£138	£113
Plymouth	£224	£163	£139	£139	£155	£137
Reading	£298	£196	£178	£165	£193	£166
South Gloucestershire	£281	£201	£185	£161	£196	£174
South Oxfordshire	£327	£238	£198	£175	£210	£179
Swindon	£278	£192	£190	£168	£211	£194
Test Valley	£299	£214	£190	£165	£211	£188
Vale of White Horse	£314	£227	£190	£170	£203	£174
West Berkshire	£321	£225	£201	£173	£213	£185
West Oxfordshire	£303	£218	£183	£166	£192	£163
Wiltshire	£272	£192	£181	£158	£191	£170
Winchester	£315	£220	£187	£171	£197	£167

Weekly data for a single person, in a 1 bed property

Median income single person households are unlikely to be able to get a mortgage for a mid-range 1 bed property; in some areas the deposit needed would be over 50%. Again, the single person may choose cheaper properties to be able to afford to own outright in one of the areas where property prices are lower. For example in

Swindon, a median one bed property would need a deposit of 23%; about £20k. They may be able to find a cheaper property that would bring this deposit down, and Swindon median income earners have the second highest living incomes for outright sales because the properties are relatively cheap. Alternatively, shared ownership could be a solution.

Table 2.3D: How much a median income household may be allowed to borrow for ownership

Location	Gross annual median income	Mortgage at 3.5 times income	Median 1 bed	Deposit needed for 1 bed	Median 2 bed	Deposit needed for 2 bed
Basingstoke and Deane	£22,226.50	£77,793	£126,250	38%	£175,000	56%
Bristol	£16,680.45	£58,382	£125,000	53%	£168,500	65%
Christchurch	£15,501.72	£54,256	£125,000	57%	£196,250	72%
Plymouth	£14,676.13	£51,366	£89,000	42%	£123,000	58%
Reading	£20,349.90	£71,225	£135,000	47%	£181,250	61%
South Gloucestershire	£19,104.32	£66,865	£110,000	39%	£154,000	57%
South Oxfordshire	£22,595.86	£79,086	£152,000	48%	£210,000	62%
Swindon	£18,822.58	£65,879	£86,000	23%	£123,500	47%
Test Valley	£20,496.14	£71,736	£115,000	38%	£167,500	57%
Vale of White Horse	£21,603.94	£75,614	£144,000	47%	£189,000	60%
West Berkshire	£22,144.76	£77,507	£140,000	45%	£195,000	60%
West Oxfordshire	£20,736.90	£72,579	£143,500	49%	£190,000	62%
Wiltshire	£18,397.71	£64,392	£105,500	39%	£152,000	58%
Winchester	£21,684.56	£75,896	£152,500	50%	£226,000	66%

Data for a single person

Is the living income a reasonable amount to live on?

The difference in living income and benefit income for general needs is broadly in line with the difference between living and benefit income for a couple with children. What is really noticeable is how low the benefit income is and what a difference there is between someone in full time work and someone out of work. If a single person in general needs lost their job, they would receive less than a third of the income they had been earning.

Table 2.3E: Living income compared to equivalent benefit income for lower quartile earning single people on different rented products

Product	Living Income	Benefit Income	Difference
General needs	£236	£72	£164
Affordable rent	£211	£72	£139
Market rent	£184	£72	£112

Weekly living income data shown is an average of the living income of the 14 key local authorities

2.4. Couples with no children

Key findings

- A couple without children who are both in work, earning lower quartile earnings, are better off than one on a median income. Neither is eligible for state benefits.
- There is a financial benefit for this group of being in lower cost rental products. But given the earnings potential of this household type, they may not be prioritised for general needs, and/or may prefer to look to ownership
- Our modelling suggests this group are most likely to be able to afford to own outright, but this is mainly due to the fact that they could live in a one bed property. Buying a bigger property becomes an issue in terms of up-front costs, and shared ownership may be a more viable option if they want a bigger property.
- There is a big difference in income between a couple both in full time work and both out of work; if a lower quartile earning couple both lost their job, they would receive in benefits just 20% of the income they were earning – as little as £113 a week.

What is their income?

Couples without children on lower quartile earnings are not entitled to working tax credits. Variation in net income for this household type on lower earnings is therefore more pronounced, from £717 in Winchester to £567 in Plymouth; a range of £150.

Similar to the single person household, the lower quartile earnings model, which assumes both adults are in full time employment, give us higher overall incomes than the median income model. The median income range is £210, from £664 in South Oxfordshire to £454 in Plymouth.

What is their living income?

A couple without children, either on low earnings or a median income, will not receive housing benefit, so again all of the financial benefit of being in a lower rent product is passed directly to the tenant. In Basingstoke, the benefit of living in a general needs product for a low earner is £29 a week compared to affordable rent and £59 a week compared to market rent. This is replicated in table 2.4B, albeit with a slightly lower overall living income.

Table 2.4A: Living income for a lower quartile earning household, by product

Housing product	Net Earnings +	Tax Credit +	Child Benefit −	Housing cost −	Housing benefit =	Living Income
General Needs	£659	£0	£0	£90	£0	£569
Affordable rent	£659	£0	£0	£120	£0	£540
Market rent	£659	£0	£0	£149	£0	£510

Weekly data for a couple with no children, in a 1 bed property in Basingstoke

Table 2.4B: Living income for a median income household, by product

Housing product	Net Income	− (Housing cost	− Housing benefit)	= Living Income
General Needs	£654	£90	£0	£563
Affordable rent	£654	£120	£0	£534
Market rent	£654	£149	£0	£504

Weekly data for a couple with no children, in a 1 bed property in Basingstoke

Housing options by geography

Despite the financial benefits for the household of cheaper rents it is clear that a couple without children both on low earnings and median incomes have a wide range of housing choices that would leave them with a good living income, although this varies significantly by geography.

Couples without children earning lower quartile full time wages will not receive housing benefit or tax credits. This means there will be more geographical variation than households with children on lower quartile earnings. The living income range in general needs is £114, from £621 in the Vale down to £507 in Plymouth. For those households on median incomes, shown below, the living incomes are lower but there is a greater range of £183, from £575 in South Oxfordshire to £392 in Christchurch.

Table 2.4C: Living income for median income households by Local Authority

		Living Income				
Location	**Net income**	**General Needs**	**Affordable rent**	**Market rent**	**Shared ownership**	**Outright sale**
Basingstoke and Deane	£654	£563	£534	£504	£556	£531
Bristol	£507	£423	£398	£370	£411	£386
Christchurch	£476	£392	£368	£341	£379	£354
Plymouth	£454	£394	£369	£348	£385	£368
Reading	£604	£503	£485	£455	£500	£473
South Gloucestershire	£571	£491	£475	£450	£486	£464
South Oxfordshire	£664	£575	£535	£503	£546	£516
Swindon	£564	£478	£476	£454	£497	£480
Test Valley	£608	£523	£499	£471	£519	£496
Vale of White Horse	£637	£551	£513	£482	£526	£497
West Berkshire	£652	£556	£532	£502	£544	£516
West Oxfordshire	£614	£530	£495	£465	£504	£475
Wiltshire	£552	£472	£461	£439	£471	£450
Winchester	£639	£544	£512	£480	£522	£491

Weekly data for a couple without children, both in full time employment, in a 1 bed property

Our modelling suggests this group are most likely to be able to afford to own outright given they could live in a one bed property. Only in Bristol and Christchurch, where median house prices are high relative to median incomes, would the household not get a mortgage that would cover the cost of a one bed property. We know that lower quartile earning couples with no children tend to be better off than those on median incomes so again we would expect outright ownership to be affordable for this group.

However, if a couple wanted to buy a bigger property, this becomes an issue in some areas; in all but Swindon they would need at least a 10% deposit, and this is as high as 44% in Christchurch. They could look to cheaper than median priced properties instead, or shared ownership may be a more viable option.

Table 2.4D: How much a median income household may be allowed to borrow for ownership

Location	Gross annual median income	Mortgage at 3.5 times income	Median 1 bed	Deposit needed for 1 bed	Median 2 bed	Deposit needed for 2 bed
Basingstoke and Deane	£45,132.50	£157,964	£126,250	0%	£175,000	10%
Bristol	£33,870.86	£118,548	£125,000	5%	£168,500	30%
Christchurch	£31,477.36	£110,171	£125,000	12%	£196,250	44%
Plymouth	£29,800.94	£104,303	£89,000	0%	£123,000	15%
Reading	£41,321.93	£144,627	£135,000	0%	£181,250	20%
South Gloucestershire	£38,792.68	£135,774	£110,000	0%	£154,000	12%
South Oxfordshire	£45,882.52	£160,589	£152,000	0%	£210,000	24%
Swindon	£38,220.58	£133,772	£86,000	0%	£123,500	0%
Test Valley	£41,618.88	£145,666	£115,000	0%	£167,500	13%
Vale of White Horse	£43,868.35	£153,539	£144,000	0%	£189,000	19%
West Berkshire	£44,966.52	£157,383	£140,000	0%	£195,000	19%
West Oxfordshire	£42,107.75	£147,377	£143,500	0%	£190,000	22%
Wiltshire	£37,357.86	£130,752	£105,500	0%	£152,000	14%
Winchester	£44,032.06	£154,112	£152,500	0%	£226,000	32%

Data for a couple with no children

Is the living income a reasonable amount to live on?

In all products, the living income for a couple without children is significantly higher than the other household types we have looked at; in general needs the living income is more than twice as high as that for a single parent. The difference between living and benefit income is also significantly higher than for other household types. Again we see that the benefit income is very low compared to potential earnings, even at lower quartile levels, showing a big difference between a couple both in full time work and a couple both out of work. If a couple in this situation both lost their job, they would receive in benefits only 20% of the income they were earning.

Table 2.4E: Living income compared to equivalent benefit income for lower quartile earning couples without children on different rented products

Product	Living Income	Benefit Income	Difference
General needs	£557	£113	£444
Affordable rent	£532	£113	£419
Market rent	£505	£113	£392

Weekly living income data shown is an average of the living income of the 14 key local authorities

3. Analysis of more detailed issues

3.1. The poverty trap

All of the analysis so far has focused on snapshots of household earnings and incomes, but we know in the real world earnings are not static. Many households, especially on lower incomes, do not have stable earnings; they are in and out of work, and even when they are in relatively stable employment they may work different hours from one week to the next, so their income varies.

So how does this impact on affordability? The current system is very complicated in terms of understanding what benefits both individuals and households are entitled to. Working tax credits especially are very hard to understand, and the lack of confidence in the system can stop people claiming them, or even trying to get work.

When a household does work enough hours to be entitled to working tax credits, they can feel trapped by benefits. There is an initial boost to earnings when you become eligible for working tax credits, but after that there is little incentive to earn more as it will mostly be offset by a reduction in the benefits claimed. The only way to significantly increase earnings is for households to earn enough so they are no longer entitled to certain benefits and therefore keep a greater percentage of each £1 earned.

This situation is often called a poverty trap, and this trap can be bigger for different households depending on their circumstances. This is relevant to our analysis as if an in work benefit dependent household is struggling to afford their rent, working a few extra hours is unlikely to be a solution, as they are not likely to be much better off.

How far are different household types from escaping the poverty trap?

The impact of the poverty trap varies significantly depending on household type. As mentioned before, household composition has a big impact on potential earnings, benefit income and also housing costs (as different household sizes need different property sizes).

The matrix below shows the location of a household on the poverty trap scale under general needs rents (top half) and affordable rents (bottom half). The chart is complex and requires careful explanation:

- The matrix shows our priority LAs as rows and a financial scale as columns.
- Each of the symbols represents one of five different household types, as detailed in the key. These households are on lower quartile earnings.
- There is one of each symbol per local authority so you can compare the same household's position on the financial scale by location.
- On the financial scale, £0 is the point where the household's income (earnings plus tax credits) are at a level where they are no longer eligible for housing benefit.
- A positive value shows how much their income would have to fall to be eligible for housing benefit
- A negative value shows how much their income would have to increase to be no longer eligible for housing benefit.

Table 3.1A: The poverty scale – how far are low earning different household from escaping the poverty trap?

Data for a lower quartile earning households

The difference in position on the poverty scale for different households is stark, with a couple with no children in a 1 bed property and a lone parent with two children in a 2 bed property at the extremes.

The couple are comfortably out of benefit dependency as they can both work full time, whereas the lone parent is a long way from being benefit independent as (in our model) the lone parent only works part time and relies heavily on benefits.

Moving onto affordable rents pushes a lone parent even deeper into the poverty trap. Under general needs, if they earned £255 a week net with rents at £100 a week, they would no longer being eligible for HB; on affordable rents at £120 they would have to increase their net earnings to £291 a week to move off housing benefit, a difference of £36 a week for a £20 rent increase.

For some couples with two children, moving from general needs to affordable rents pushes the household into the poverty trap.

It is worth emphasising this example only shows what is needed to no longer be reliant on HB. The amount needed to no longer be reliant on any benefits would be higher and if we plotted these results, all of the symbols would shift significantly to the left.

3.2. The impact of Universal Credit

All of the analysis in the findings section has focused on what happens under the current benefit system. Between 2014 and 2017, potentially into 2018, benefit claimants will be moving onto Universal Credit, which means they get all of their benefits paid as one lump sum.

The principle behind this move is to simplify the system and ‘make work pay’. As earnings rise, Universal Credit is expected to be withdrawn at a constant rate of around 65p for each £1 of net earnings. Although this may seem a lot, it provides certainty and a smoother transition, rather than the cliff edges associated with the current system.

So how will this change the findings so far in the research report? The answer is not by much because the findings so far look at static data of those already eligible for working tax credits, so there shouldn’t be much difference in terms of the benefit income being claimed.

The situation described in section 3.1on the poverty trap might look a bit less bleak for some households under Universal Credit. It may be possible for households to work a few more hours to make up shortfalls in rent, or may encourage some households to take up work generally. The poverty trap may feel a little less like a trap. It may also encourage take-up of benefits because of the system being in one place and easier to understand.

4. Out of work households and the impact of welfare reform

Throughout the report we have made reference to the benefit income of different household types who are out of work. In terms of affordability for a landlord, this isn't a huge concern as out of work households have their rent paid in full by housing benefit.

However, recent welfare benefit reforms have changed this in two significant ways:

- Cuts to housing benefits mean some out of work social tenants have a proportion of their rent to pay from their benefit income.
- As Universal Credit is rolled out, direct payments will bring social landlords further uncertainty as tenants start to receive their benefit payments directly, including the housing element.

We look at both of these in turn below.

Housing benefit cuts

Housing benefits have been changed, with some social tenants having their benefit subsidy reduced by the bedroom tax, or the amount they received capped by the benefit cap.

Bedroom tax: Those of working age in social rented homes under-occupying their home lose either 14% or 25% of their eligible housing benefit depending on how many rooms they are under-occupying by.

This has the biggest proportional impact on those out of work on low benefit income. For example, a single person out of work would get £72 a week in JSA and full housing benefit. If they lived in a 3 bed general needs house in Reading (assuming for example, their children had moved out and they hadn't downsized), they would lose 25% of their housing benefit, in this case £32, leaving them with £40 a week to live on (to pay all of their bills as well as food, clothes etc).

For those in work, the proportional impact on their living income isn't as severe, even in extreme cases. For example, a lone parent with two children, under-occupying a four bed house by two rooms, would lose 25% of their eligible HB. In Basingstoke & Deane using our model, their living income would fall from £316 a week to £284 – a 10% drop. This is clearly not nice for the household, but not as severe as if the same family were out of work, where their living income would fall from £220 to £188, or by 15%.

Benefit cap: The benefit cap only affects those out of work, or not working enough hours to be eligible for working tax credit. It puts a cap on benefit income at £500 a week with the excess taken from the household's housing benefit.

The two main factors that affect whether a household exceeds the benefit cap are the household composition and rent level. Those families with a large number of children under 16 are more likely to be affected. Across our operating areas, couples with four children could already be affected depending on rent levels. Households living in higher rent areas are more likely to be affected.

At present, the benefit cap is not a particularly big concern for social landlords outside of particularly high rent areas such as London as it only affects a very small minority of households. The issue is that there is no certainty around the level of the cap going forward and there has been no commitment to index link it. If it stays static at £500 while benefits increase by 1% and rents by CPI +1%, the amount of people affected, and the amount that those affected will lose, will both increase over time. Table 12 shows that average couples with three children will be affected in general needs properties by 2020/21 in Reading and Winchester. The same households in affordable rent properties will be affected in 8 out of the 14 local authorities now and in all areas by 2020/21.

Table 12: The benefit cap and how the impact increases over time

Location	2013/14	2014/15	2015/16	2016/17	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Weekly benefit income data for a couple with 3 children in a 3 bed general needs property										
Basingstoke and Deane	£442	£450	£458	£465	£474	£482	£491	£499	£508	£518
Bristol	£428	£435	£443	£450	£457	£465	£473	£481	£490	£498
Christchurch	£439	£447	£454	£462	£470	£478	£487	£495	£504	£513
Plymouth	£403	£409	£416	£422	£429	£435	£442	£449	£456	£464
Reading	£454	£462	£470	£479	£487	£496	£505	£514	£524	£534
South Gloucestershire	£428	£435	£442	£450	£457	£465	£473	£481	£489	£498
South Oxfordshire	£440	£448	£455	£463	£471	£480	£488	£497	£506	£515
Swindon	£432	£439	£446	£454	£462	£470	£478	£486	£494	£503
Test Valley	£435	£442	£449	£457	£465	£473	£481	£489	£498	£507
Vale of White Horse	£435	£443	£450	£458	£466	£474	£482	£490	£499	£508
West Berkshire	£445	£452	£460	£468	£476	£485	£494	£502	£512	£521
West Oxfordshire	£433	£441	£448	£456	£463	£471	£479	£488	£496	£505
Wiltshire	£428	£435	£443	£450	£458	£465	£473	£481	£490	£498
Winchester	£453	£461	£469	£478	£486	£495	£504	£513	£523	£533
Weekly benefit income data for a couple with 3 children in a 3 bed affordable rent property										
Basingstoke and Deane	£501	£511	£521	£531	£541	£552	£563	£575	£587	£599
Bristol	£483	£492	£502	£511	£521	£531	£542	£552	£563	£575
Christchurch	£510	£520	£530	£541	£552	£563	£575	£587	£599	£612
Plymouth	£456	£464	£472	£481	£489	£498	£507	£517	£526	£536
Reading	£510	£520	£530	£541	£552	£563	£575	£587	£599	£612
South Gloucestershire	£473	£482	£491	£500	£509	£519	£529	£539	£550	£561
South Oxfordshire	£547	£558	£570	£582	£595	£607	£621	£634	£648	£663
Swindon	£460	£469	£477	£486	£495	£504	£513	£523	£533	£543
Test Valley	£488	£497	£507	£516	£526	£537	£547	£558	£569	£581
Vale of White Horse	£511	£521	£531	£542	£553	£564	£576	£588	£600	£613
West Berkshire	£510	£520	£530	£541	£552	£563	£575	£587	£599	£612
West Oxfordshire	£506	£516	£527	£537	£548	£559	£570	£582	£594	£606
Wiltshire	£470	£478	£487	£496	£505	£515	£524	£535	£545	£555
Winchester	£529	£540	£551	£563	£574	£586	£599	£612	£625	£638

Direct payments

The biggest financial risk for social landlords of welfare reform is the introduction of direct payments in Universal Credit. This means that the housing element of Universal Credit will be paid directly to the tenant, rather than to the landlord, which is the usual arrangement under housing benefit. This introduces a big risk to social landlords as there is less rent certainty and households who have never had to worry about paying their rent now are being given the income to do so, but have many conflicting pressures for this money. Realistically paying the rent is not likely to be at the top of the priority list for tenants with other outstanding debts.

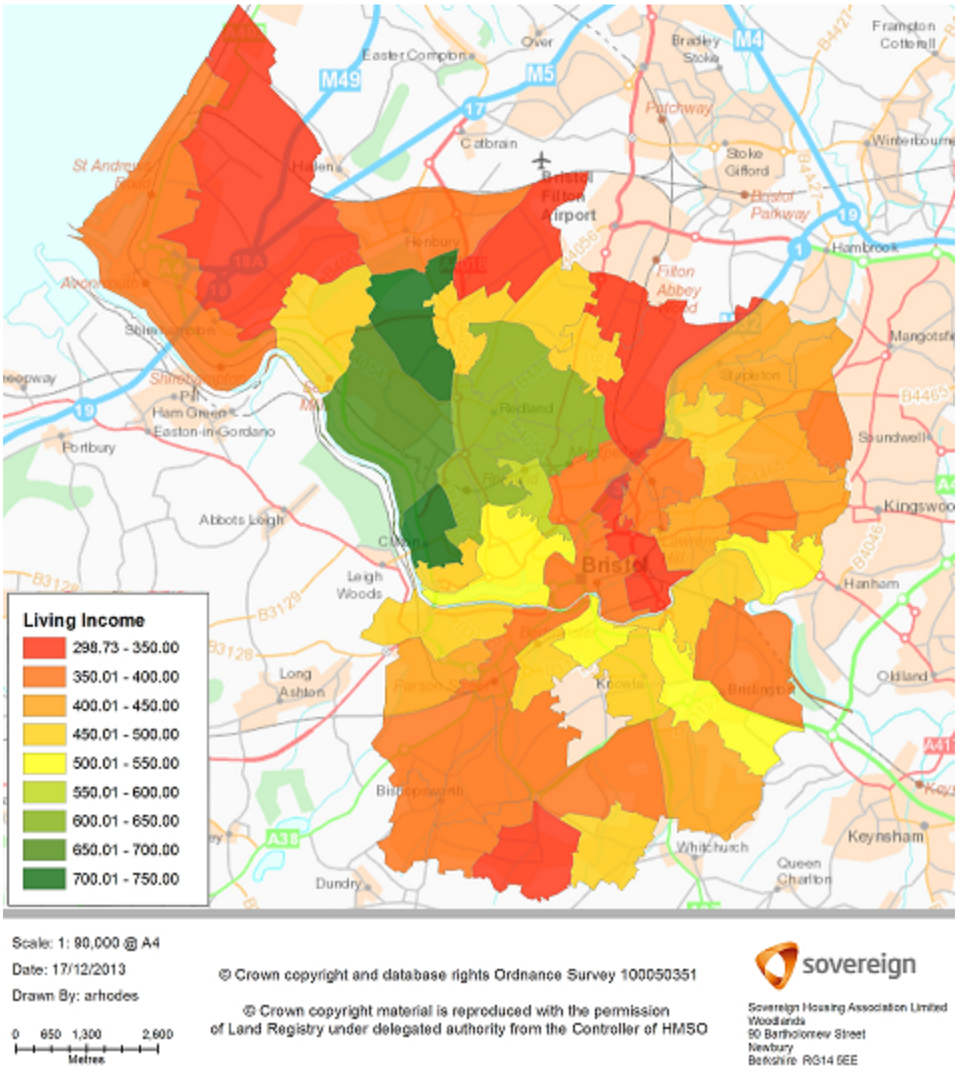
Future welfare reform changes

It is likely that there will be further welfare reforms and, although the detail is unclear, the intention is to reduce the benefit bill further, so any changes are likely to be cuts or stricter eligibility criteria. For example, there has been a lot of coverage about potentially stopping housing benefit for under-25s and only allowing benefits for two children.

5. What else can the models tell us?

While we were carrying out the research for both this project and the Housing Market Prices project, it was clear that there would be an on-going benefit to using this data to inform business decisions. An example of this is during the process of checking site viability, when analysing demand in an area for certain products.

The median income model was designed to also show data at Middle Super Output Area (MSOA). The steering group of the Housing Market Prices project felt that local authority level analysis was not detailed enough to understand local differentials needed to make decisions at a scheme level. The map below highlights the differences between living incomes for a couple with two children for a market rented property in Bristol.



There is range in living incomes by MSOA is £436, from a high of £735 to a low of £299. In these two areas, the rent level is about the same, but the net income levels are £460 a week in the lower income area and £894 a week in the higher area.

The information gives useful context; clearly a household's choice of where to live is not limited by a MSOA or a LA, but by mapping the data you can get a sense of the local market for a scheme.

6. Technical Appendix

6.1. The Research

As with the other strategic research projects, this project was guided by a steering group, who met on four separate occasions to shape the research. Project sponsor Ian Gilders, along with Nick Page, Jon Fisher and Tina Key attended all four of the steering group meetings and contributed a huge amount of time and thought to the process. James Laird, Linda Bonnin and Kelly McArthur each attended one of the meetings to contribute their expertise.

To support the research we also visited Professor Steve Wilcox, Centre for Housing Policy at the University of York, who is widely regarded as an expert on the issue of housing affordability. He provided some useful advice that helped us build a more robust picture of our markets.

The project is underpinned by the outputs of the Housing Market Prices project, which provides all of the housing cost data and the assumptions that sit behind the data, which can be changed when using the model.

The role of the steering group in this project was to define the approach we would take to measuring affordability. This is a complex area; households have very different circumstances and defining a broad approach that recognises these complexities is not easy, especially with data limitations.

As a start point, we looked at how housing affordability is commonly measured across the sector.

- **Proportional measure**, which looks at the proportion of income spent on housing costs, with 35% often seen as an upper limit. We felt this option was limited and too blunt; e.g. a single person is likely to be able to afford to spend a greater percentage of their income on housing than a couple with children. Lower income households also tend to have less flexibility with living costs.
- **Residual measure,** which aims to identify the income left for housing costs after taking into account living costs. The problem with this approach is finding an accepted measure of living costs that varies by household composition. JRF provide a Minimum Income Standard (MIS) for all households; this is an aspirational standard to allow for participation in society beyond what is needed just to get by. For these purposes, the MIS may be considered too high as it includes items and activities that could be considered to be optional or unnecessary.

We felt both of these options were limited and the research that exists in this area is not detailed enough to give us the insight we need. Instead, we have taken a slightly different approach, designing an affordability model that provides us with series of information points that we can use as a comparison across products and help us answer different questions. These are described in detail throughout the report.

6.2. Our approach

A key part of our research was being able to understand how benefit income impacts how affordable certain housing options are. Certain households on low earnings are likely to receive help with their housing costs through housing benefit, as well as income supplements through tax credits. The make-up of the household will affect the amount of benefit received; i.e. if a household has more children they will receive more child benefit and tax credits. Households out of work for whatever reason will also receive additional benefits depending on their circumstances, for example Job Seekers Allowance.

In terms of defining an approach, we decided to focus our detailed analysis on those households who are in work. Clearly any housing option is unaffordable for someone out of work if they are relying on benefit income to pay the housing costs. Despite this, for a social landlord, those on full housing benefit are not a risk in terms of affordability because the landlord receives the rent directly from Local Authorities (LA).

In terms of modelling affordability, we decided to focus on two different groups of in-work households who would likely be looking at different housing choices:

- Households with low earnings, often relying on benefits both to supplement their incomes and help with housing costs. They are likely to be looking for social housing or lower end private rented housing.
- Households with more earnings, who may no longer be eligible for benefits, with a wider range of housing options, including shared and outright ownership.

As a result we have developed two models that focus on the different incomes above. However, many of the factors that have an impact on what people can afford are relevant to both models and these are detailed below:

Geography: Where the household lives can affect the amount they earn as pay varies by geography, with households living in more affluent areas tending to earn more money. It is worth pointing out that the variation is more pronounced as earnings increase; geographical variation in low paid work is less significant as people in entry level jobs will tend towards hourly rates at the minimum wage (set nationally) and receive benefits to supplement their earnings.

Rental prices and house prices vary significantly by location and as an output of the Housing Market Prices project we have detailed price data at LA level and Middle Super Output Area (MSOA) level, which is a statistical geography that contains between 2,000 and 6,000 households. There are approximately 1,000 MSOAs across our operating areas, which equates roughly to 20 per local authority.

Benefit Income: As stated above, households on low earnings are likely to receive help with their housing costs through housing benefit, as well as income supplements through credits. These are set nationally but vary according to many factors, such as income, household composition and rent levels. As benefits are linked to incomes and are set at national rates, this has the effect of smoothing out variations of low income households.

Household composition: Incomes by household types vary significantly. A single person is likely to earn less than a couple as they have half the earnings potential. A lone parent may wish to work, but be restricted in the amount they can work by childcare issues, whereas a couple with children may be more flexible. Benefit income also varies hugely depending on household composition, with tax credits and child benefits increasing and housing benefit reductions kicking in later the more children there are in the household.

Looking at income data from the Living Cost and Food Survey 2012, the average net income for a lone parent with two children is c£360 a week, compared to £830 for a couple with two children. The lone parent is far more reliant on social security benefits, which makes up 50% of their income, compared to just 8% of the couple's income.

The data also shows on average a couple with no children (£898 a week) earns more than twice that of a single person with no children (£436).

Products: We decided on a simple list of housing options that most consumers would choose between when finding somewhere to live – this product list will be used throughout the research projects for consistency; we may decide to break down certain products into more categories but we will always be able to aggregate back to these high level six products. The products are

Product name	Product definition
General needs	This is specifically social rented general needs
Supported Housing	This will encompass what we class as supported housing, housing for older people.
Shared Ownership	Traditional shared ownership, including Govt schemes such as Help to Buy and NewBuy.
Market Rent	Full market rent, essentially private rent
Affordable rent and Intermediate market rent	Set at 80% of market rents. The key difference between affordable rent and intermediate market rent is that affordable rent is targeted at people on housing registers.
Outright sales	Open market sales. May be split into first time buyers and others.

Product size: Following on from products, clear the size of the property will affect the cost of the product. The models we have developed show the different costs for 1, 2, 3 and 4 bed properties.

Living costs: When trying to understand what it would be reasonable for a household to spend on their housing, it is helpful to have an idea about what their living costs might be. This again is linked to household composition, as we would expect a couple with children to have much greater outgoings than a single person with no children.

Data is limited in this area. Joseph Rowntree Foundation (JRF) provide a Minimum Income Standard (MIS) which is a national benchmark for different household types, but this figure is an aspirational standard to allow for participation in society and is beyond what is needed just to get by so for the purposes of this model the MIS may be too high.

The other option is using the income the same household composition would receive if they were out of work and living on benefits. In terms of an income that has been agreed is sufficient to survive on, this is a useful benchmark and we can measure the distance between the living income and the benefit income to see which household types benefit most from working and would therefore be most financially hit by losing their job.

Where does the data come from?

We have used a number of sources of data for the model:

Variable	Sources of data
Income	• Annual Survey of Hours and Earnings (ASHE) for the lower quartile earnings tool, looking at lower quartile data by Local Authority. • CACI median income data for the median income tool, which goes down to Middle Super Output Area • The Living Costs and Food Survey, which tells us household income by household composition. We have used this data to create the multiplier in the median income tool. • Benefit income data, focusing on tax credits, housing benefit and child benefit.
Costs	• Home & Community Agency's Statistical Data Return for General Needs data • Hometrack price data for Affordable Rent, Market Rent, Shared Ownership and Outright Ownership • Out of work benefit data; Job Seekers Allowance, Child Tax Credit and Child Benefit

As stated in section 1, we designed two separate models to help us understand affordability for households with different income levels. These are explained in more detail below.

6.3. Model A – *Households earning at a lower quartile level*

This model analyses the rental options for different types of in work households on lower quartile earnings, at Local Authority level.

Methodology

The household income is calculated as follows:

Earnings: The earnings data is taken from the Annual Survey of Hours and Earnings (2012)[1]. This provides earnings data for individuals and doesn't include any benefit income. The assumptions we made to differentiate the earnings for adults in the different household types are as follows:

- Single person = Lower quartile full time earnings
- Lone parent = Lower quartile part time earnings
- Couple, no children = 2 x Lower quartile full time earnings

[1] http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/annual-survey-of-hours-and-earnings/index.html

- Couple, with children = 1 x Lower quartile full time, 1 x Lower quartile part time earnings

Benefits: The benefits data separately measures income from tax credits, child benefit and housing benefit. The tax credits and child benefit are added to the household earnings to give a household income figure; the housing benefit is taken off the housing costs to give an overall housing cost figure relevant to that household type.

6.4. Model B – *Median income households*

This model analyses the housing options of different types of households on median incomes, at both LA and MSOA level.

Methodology

This model looks at median income from CACI, which includes benefit data although not housing benefit. It captures all households including pensioners and those out of work.

CACI data is available at MSOA which allows us to get a more granular feel for our housing markets. However, looking just at an average income does not give the full picture; we know that different household types will earn more or less on average and we wanted to reflect this in our model. So we decided to use data from the Living Cost and Food Survey, which gives us disposable income for each household type, to create a multiplier. So for example the median income would be inflated by varying amounts for couples with and without children, and deflate by varying amounts for single people and lone parents, because they have less earnings potential.

The tool allows us to look at a households' net weekly income, weekly housing cost, HB entitlement (if any) and calculate a living income. These data points will vary based on the selection of the following variables:

Product: General needs, Affordable rent, Market rent 30th Percentile, Market rent median, Shared ownership, Outright sale.

Number of bedrooms: 1 bed, 2 bed, 3 bed, 4 bed

Household composition: Single working age, Lone parent one child, Lone parent, two children, Lone parent, three children, Couple working age, no children, Couple, one child, Couple, two children, Couple, three children, Couple, four+ children

Location: Each LA and MSOA where we operate

The tool also uses Census 2011 data to show the population of each location selected, showing the percentage that are currently living in social rented, private rented, shared ownership and outright owned accommodation.

For more information please email Natalie.Pearton@sovereign.org.uk

Sovereign Housing Association is charitable

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