abrdn Financial Fairness Trust

Financially squeezed households above the poverty line: new evidence

Professor Donald Hirsch, Policy Adviser - April 2023

Introduction

The recent reduction in living standards, caused by the cost of fuel, food and other basic items rising faster than household incomes, has been felt across most of the income distribution. Even relatively well-off families, with more than enough to afford essentials, may have to reduce discretionary spending or savings in order to cover higher household bills. Of greatest social concern, however, are those with limited means for whom the result has been severe financial strain or hardship. While this will be most severe for those on the very lowest incomes, many people closer to the middle of the income distribution are also unable to afford, say, the £1700 a year increase in average energy bills between March 2022 and April 2023, without major sacrifices in their household budgets.

Yet while plenty of commentators and politicians acknowledge that people on low to middle incomes are struggling, the degree to which this is the case has not hitherto been well quantified. This matters particularly in relation to how the Government targets support. In 2022/23, ad hoc help to households to support living costs combined universal with targeted payments. In 2023/24, it is being restricted to a targeted payment going only to those already receiving means-tested benefits including Universal Credit, even though living costs for everyone continue to rise. This creates a risk of additional hardship to those whose incomes are not low enough to qualify for means-tested benefits, but who nevertheless cannot afford the increase in bills.

This paper presents new evidence on financial strains and outcomes reported by people on different incomes during the cost of living crisis. The evidence comes from abrdn Financial Fairness Trust's Financial Impact Tracker survey, which has been regularly questioning a sample of 6000 households about their finances and where rising costs have caused strains and change in behaviour. In particular, the data allow us to compare who was in difficulties before inflation took off, in October 2021, to the situation a year later, after prices had risen by over 10%.

To some degree, what this can tell us is distinctive to the present unusual circumstances. It shows the increase in financial strain, and the areas in which people are having to cut back. Yet by looking at where in the income distribution these difficulties are being felt, it also provides useful evidence about which groups are vulnerable to adverse conditions. When households on low or modest incomes encounter changes in their lives related for example to employment status or household composition, this can create severe difficulties if they have only just been getting by, and if they lack resources such as savings or strong social networks that make them resilient to such change. The extent to which financial strains are being felt at different parts of the income distribution in today's difficult times tells us something broader about which groups are vulnerable in this regard.

The following results from the tracker survey are based on estimates of household income from self-reported income in bands, “equivalised” to take household composition into account. The methodology is explained at the end of this paper.

Financial strains and how they have increased

The headline measure in the tracker survey uses a range of questions to classify households by their financial wellbeing on a composite index. In October 2022, one in six households were in the worst situation on this index, classified as in “serious difficulties”, typically having fallen behind with their bills and feeling a high level of anxiety about their finances. This had increased sharply, from one in ten a year previously.

Figure 1 shows that, as expected, the risk of being in financial difficulties was much greater for those on the lowest incomes than people who are better off, showing an income gradient across the distribution. Yet it is also notable that the degree to which the risk worsened was relatively even between the second and the seventh deciles. That is to say, while the bottom 10% of the population stand out as having become far more likley to be in serious difficulties, this increase in risk was almost as great among groups close to the middle of the distribution as among those in the bottom 20% but not the bottom 10%. This does not mean that the resulting additional hardship was equivalent in both cases, since financial difficulties will have different material implications for people on different incomes. Nevertheless, it clearly confirms that it is not only the roughly 20% of people classified as being below the poverty line who are getting into financial trouble.

Figure 1 - % in serious financial difficulties, by income decile group, October 2021 and October 2022.

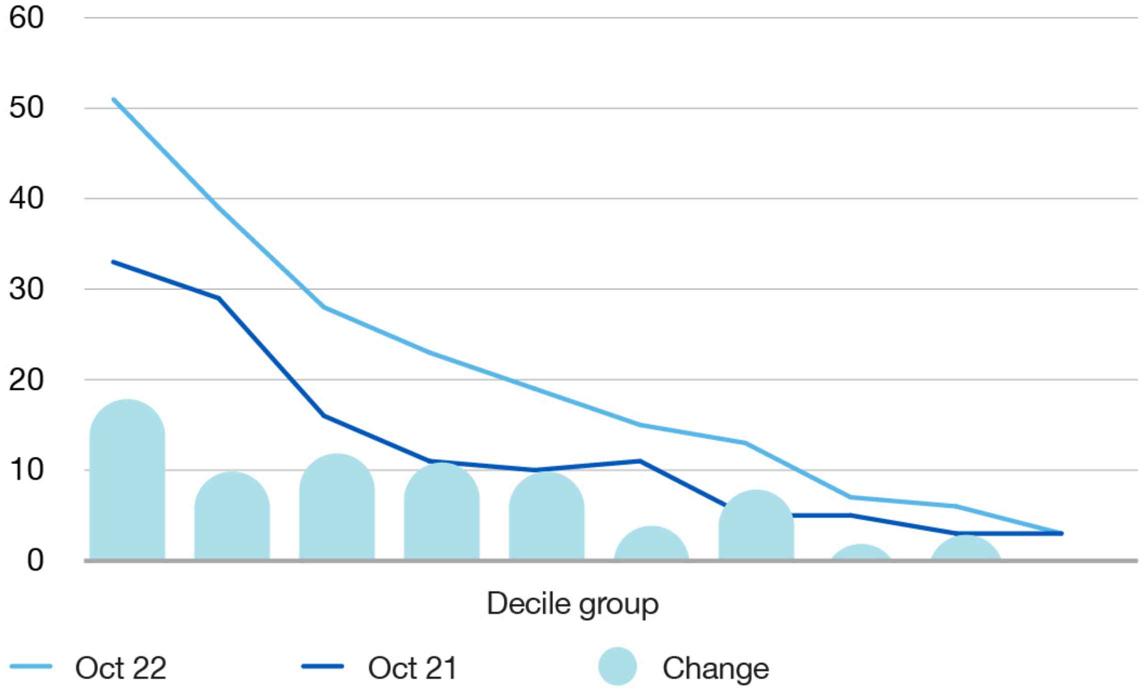


Table 1 looks more closely both at this overall risk of financial difficulties and at some specific problems that people face, comparing October 2021 and October 2022. Two particular results stand out. The first is that the difficulties being encountered near the middle of the income distribution include the ability to pay for essentials, and are therefore not just attributable to a decline in standards of living affecting more discretionary spending. For example, in October 2022 nearly one in three (31%) people in the fourth income decile said they were struggling to pay for food and other household expenses, up from under one in five (19%) a year previously. The second is that across a range of different indicators, there have been similar changes in the general level of risk among given decile groups - as shown by the colour coding.

Table 1 - % with various financial difficulties, October 2021 and October 2022.

Income decile group	1	2	3	4	5	6	7	8	9	10
Oct-21										
In serious difficulties with finances (based on index)	33%	29%	16%	11%	10%	11%	5%	5%	3%	3%
Constant struggle to pay bills	33%	29%	19%	16%	12%	12%	6%	5%	4%	4%
Currently struggling to pay for food and other necessary expenses	38%	34%	21%	19%	15%	15%	7%	6%	4%	6%
Behind with at least one household bill	40%	30%	26%	23%	18%	19%	14%	13%	12%	11%
Oct-22										
In serious difficulties with finances (based on index)	51%	39%	28%	23%	19%	15%	13%	7%	6%	3%
Constant struggle to pay bills	46%	37%	29%	25%	20%	15%	16%	8%	6%	4%
Currently struggling to pay for food and other necessary expenses	64%	41%	36%	31%	22%	20%	18%	12%	8%	5%
Behind with at least one household bill	58%	45%	35%	28%	25%	27%	15%	17%	9%	8%

Most strikingly, among those in the fourth and fifth deciles, in almost all cases between 10 and 20% had the financial difficulties shown in October 2021, but this had risen to between 20 and 30% in October 2022. Either side of these decile groups, there were also specific worrying changes – notably, even in the sixth decile over a quarter (27%) are behind with bills, up from 19% a year previously. But in general terms, the fact that over one in five people just below the middle of the distribution are now facing difficulties of the kind shown creates a case for rethinking who may need help and how closely to target support.

Another way of looking at this is to consider the extra risk being faced by people just below the middle of the distribution compared to those with incomes that are higher. For example, people in the middle of the distribution (fourth to sixth deciles groups) are about three times as likely to be behind with their bills than at the top of the distribution (top two groups).

Equally, it is important to keep in mind that these risks near the middle are much lower than at the bottom of the distribution – typically only half as great. Those in the poorest fifth, roughly those below the poverty line, have about a 50% chance of having severe financial difficulties. For those in the third decile group, the risks are substantially higher than near the middle but substantially lower than at the bottom. Figures 2 and 3 look further at what has changed with these indicators, in two different ways. Figure 2 considers the percentage point increase: what the increase in risk represents in terms of the percentage of the population affected. Figure 3 looks at the change in proportional terms: how much higher the risk was proportionately in 2022 than in 2021.

These graphs show variable patterns with different indicators in terms of the percentage point increase, but distinct spikes in the middle and the upper middle of the distribution in terms of proportionate increase.

Specifically, the risk of serious financial difficulties has doubled in the fourth and fifth decile groups, while most of the risks shown have more than doubled in the seventh decile group. As can be seen in Figure 1 above, the high proportionate increase at the seventh decile represents the fact that the risk of serious financial difficulties declined less steeply at this point in the distribution in 2022 than in 2021; the risk for the seventh decile rose from a very low level, 5%, to 13%. This shows that being this far up the distribution became a less reliable protection against financial problems than previously, even though the risk is still comparatively low.

For the fourth and fifth decile groups, on the other hand, the risk of serious financial difficulties doubled to a more substantial level, 23% in 2022 compared to 11% in 2021. It is also worth noting, from Figure 2, that the chance that people were struggling to pay for food went up rapidly in percentage point terms at the third and fourth deciles – from 19 and 21% respectively in 2021 to 31 and 36% in 2022. This is a very serious increase in numbers at this point in the distribution facing a problem that one would normally associate with being in poverty.

Figure 2 - Percentage point increase in risk of various financial difficulties, Oct 2021 to Oct 2022.

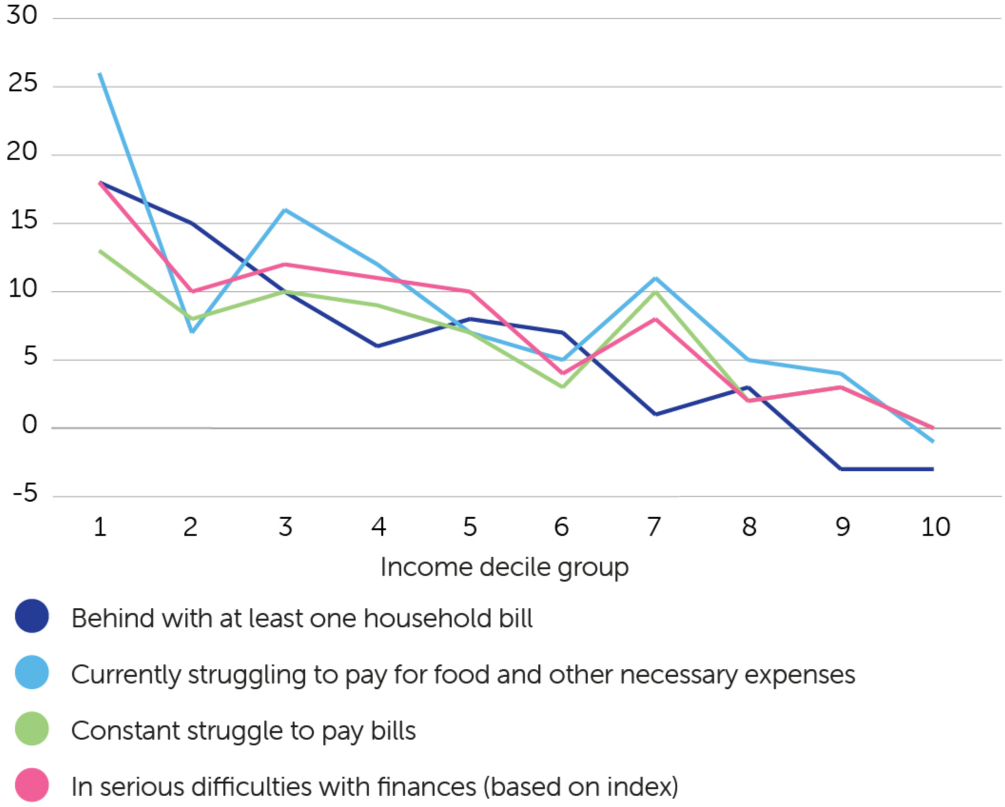
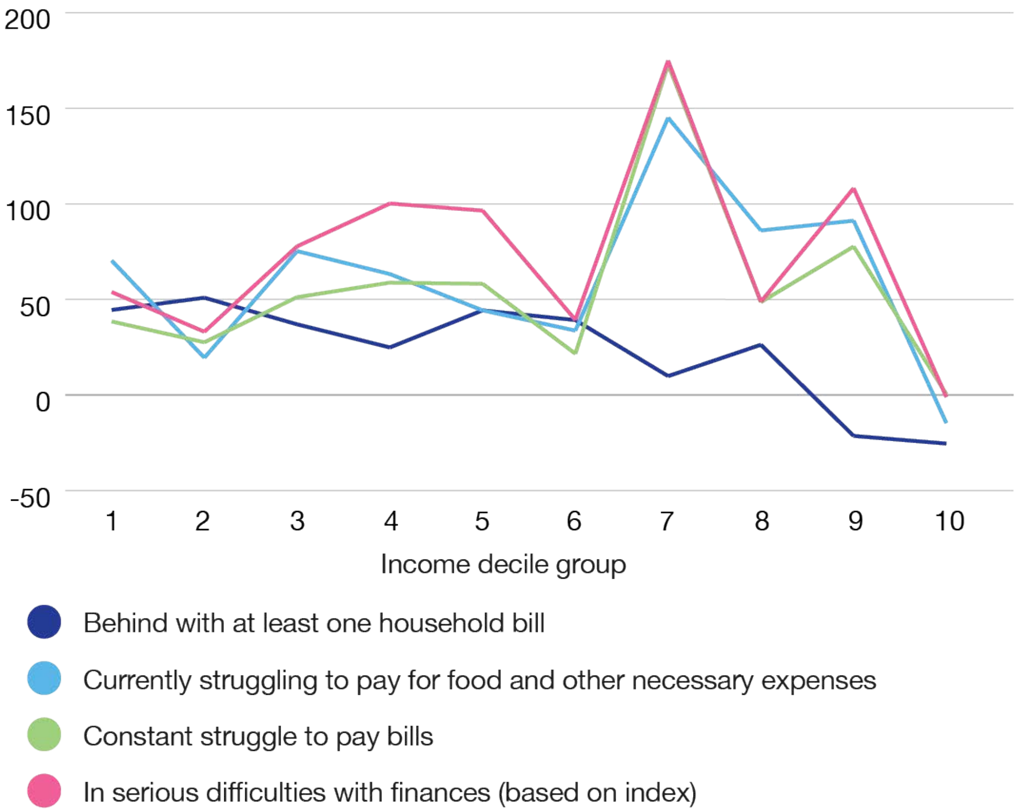


Figure 3 - Proportionate* increase in risk of various financial difficulties, Oct 2021 to Oct 2022*eg a doubling of the percentage risk is represented as a 100% increase.



How are the strains on household finances affecting living standards?

The above results relate to questions about the extent to which people perceive themselves as having difficulties (such as finding it hard to afford things) but not to the final outcomes in terms of their consumption (such as having to go without certain essentials). Further questions in the tracker ask about the impact of cost of living increases on their actual living standards, related to which needs they are less able to meet than before. These indicators, presented in Tables 3 and 4, are shown only for October 2022, since these questions were not asked a year previously. (They were asked in June 2022 and the results have shown some minor deterioration since then, but the bulk of the increase in financial difficulties between October 2021 and October 2022 had already occurred by June.)

Table 3 shows what people of different incomes say about the effects of living costs on certain material living standards. The most striking aspect is the high proportions who say there has been an effect on the quality of the food that they eat and their ability to keep their home warm and comfortable: even in the upper half of the income distribution between a quarter and a half say they are affected in most cases. This shows the breadth of the population who have had to adapt in some way to these costs. It is important to acknowledge that people reporting these effects are not necessarily experiencing hardship, rather than some minor discomfort and/or changes in behaviour. In the case of food quality, it may be a matter of buying food that is more economical but still healthy and adequate.

The last question in Table 3 is a more telling indicator of the risk of hardship. Cutting the number of meals eaten as a result of the cost of living implies going hungry some of the time. Here, there is a steeper social gradient and only a small proportion reporting the effect at the top of the distribution. Nevertheless, it is striking that nearly one in five people in decile groups 4 and 5 report cutting back on meals. This corroborates the findings reported earlier, that similar numbers near the middle of the distribution are coming under financial strain. This indicator shows more than any other that this strain has consequences on people's actual living standards, with people significantly above the poverty line at significant risk of experiencing material deprivation.

Table 2 - Negative impacts of living costs on material living standards reported in October 2022

Decile group	1	2	3	4	5	6	7	8	9	10
Cost of living negatively impacts:										
Ability to keep house warm	58%	56%	50%	51%	45%	46%	44%	38%	38%	30%
Quality of food you eat	57%	53%	44%	45%	41%	34%	40%	33%	26%	22%
Number of meals you eat	44%	33%	24%	19%	18%	16%	14%	14%	8%	7%

A final set of indicators are shown in Table 4. The first two relate to social participation, and show that across the distribution close to half of people are finding it harder to afford holidays and at least a third (other than in the top to decile groups) are having to cut back on socialising. These are "discretionary" activities, and cutting back may mean different things to different groups, in some cases indicating that people still go on holiday and socialise, but just less than in the past, while in others having to cut out such activities entirely.

In the case of holidays, the greatest risk of cutting back is not at the very bottom of the income distribution, where many people will not previously have taken holidays so will not have cut back. Rather, it is towards the middle, where people who had just managed to afford a holiday may longer be able to. This distinction could also explain why the greatest risk of cutting back on savings, shown in Table 4, occurs for people in the upper half of the distribution, since those lower down are less likely to have saved. Nevertheless, the very high numbers who say that higher living costs restricts their ability to save is very striking. It suggests that this has been one of the first items to be sacrificed in a financial squeeze.

A more obviously serious consequence of higher living costs, shown in the final row of Table 4, is that many have become more likely to borrow for today's living expenses, using credit cards, overdrafts or loans. While in some cases credit card spending may be regularly paid off, the numbers saying that they have become more likely to use these sources are worrying. Corresponding with other evidence from the survey of a depletion in savings, it suggests an increase, across the income spectrum, in spending behaviours that may prove unsustainable. The fact that about one in five people up to the 7th income decile group are reporting this confirms that those in the middle of the income distribution are not just reporting financial strain but behaving differently in response to these pressures.

Table 3 - Selected other negative impacts of living costs reported in October 2022.

Decile group	1	2	3	4	5	6	7	8	9	10
Cost of living negatively impacts:										
Ability to afford holiday	46%	54%	53%	54%	56%	51%	52%	49%	42%	38%
Ability to participate in social activities/family gatherings	44%	48%	43%	39%	37%	34%	36%	31%	27%	19%
Amount of money saved	43%	49%	48%	47%	48%	51%	50%	50%	51%	44%
Using formal credit for daily living expenses	25%	25%	21%	22%	23%	21%	20%	17%	16%	15%

Conclusion

The above evidence suggests that people near the middle of the income distribution are currently facing substantial risk of financial strain and material hardship. This risk is typically only about half as high as people below the poverty line, but far greater than for people towards the upper end of the income distribution. Although the potential inaccuracies in measuring income in this survey cause us to treat these results as indicative rather than definitive, they corroborate a wide range of prior evidence that the risk of material deprivation declines progressively with rising income rather than disappearing suddenly once households rise above the poverty line.

While this progressive reduction in risk makes it hard to pinpoint any one income level up to which policy makers should consider offering financial assistance to households, the patterns described here offer some clues. Specifically, they highlight the recent doubling of some risks among those in the fourth and fifth income decile groups (i.e., from the 30th percentile to the median), with over 20% of this group facing severe financial difficulties and a squeeze on their spending on essentials. They also show that even in the sixth and seventh deciles some significant, though somewhat smaller, proportions of households are getting into difficulties. The overall conclusion is that targeting help too narrowly on the bottom 20 to 30 per cent of the population could leave those with incomes closer to the median at substantial risk.

Methodology

The Financial Impact Tracker survey is a periodic cross-sectional survey to track the financial situation of UK households, initiated at the start of the coronavirus pandemic in early 2020, with seven waves so far conducted up to October 2022. It is based on a sample of around 6,000 respondents to YouGov's online panel survey. Full details of the survey and the most recent wave can be found at www.financialfairness.org.uk/en/our-work/publications/tracker-december-2022. The above analysis covers is based on working age households who reported income, with a sample of 3,954 households.

The survey asks respondents to report their total households incomes from various sources. The survey was not set up to analyse income data in detail, and the accuracy of income reported in an online survey will never be as great as in full household surveys based on interviews in respondents' homes. Nevertheless, responses on income give a basis for estimating which income decile each respondent is in – i.e. to rank the incomes of different respondents with a reasonable degree of accuracy. In doing so, it is also important to adjust for household composition, through "equivalisation", so that households' incomes are ranked not in absolute terms but relative to the number of members whom they need to provide for.

In order to create as accurate a picture as possible of the relationship between income and financial wellbeing, initial tests were carried out to observe the overall strength of this relationship using different approaches to equivalising the reported incomes. These tests demonstrated that correlations were stronger with equivalisation than without equivalisation. Furthermore, a stronger correlation was identified using an equivalisation method that gave additional weight to children, compared to the official scales, reflecting evidence that these scales underestimate the relative cost of children. On the basis of these results, the method producing the strongest correlation was used. The technical appendix below gives further details of the methodologies used.

The strength of the overall correlation between reported income and reported financial strains, and the increase in this strength when incomes were equivalised, give us confidence that self-reported incomes are indeed allowing us to distinguish between households at different points in the income distribution. Equally, we cannot say to what degree of accuracy this is being achieved, and in particular whether in the results below, some people reporting financial difficulties are being placed in higher income deciles than they should be. The above results therefore have to be regarded as indicative rather than precise.

Technical appendix, by Jamie Evans, University of Bristol
Equivalising household incomes

In order to provide a better representation of where households rank in terms of their income, it was necessary to calculate equivalised versions of their income which adjust for the number of adults and children living in the household. In other words, this process recognises that an income of, say, £30,000 stretches considerably less far for a family of two adults and two children than it might for a couple without children – while also recognising that there are economies of scale to living in a couple compared to living as a single adult.

For this process, we use data from several questions in the survey on: whether or not the respondent is living with a partner; the number of children living in the household; the ages of children that the respondent has; and gross (before tax) annual household income (originally collected in income bands ranging from under £5,000 to over £150,000, with the interval between most bands being £5,000, rising to £10,000 for higher incomes). For the analysis, households were randomly assigned an income somewhere within the bottom and top of the income band they had selected. (We did also briefly test an unequivalised measure which assigned households the mid-point of the income band.) Those who had not provided their household income were excluded from the analysis, as this was preferable to imputing incomes.

All equivalisation was done on a ‘before housing costs’ (BHC) basis, as data on housing costs had not been collected within the survey.

Several different methods of equivalisation were tested, each of which involved changing the weights associated with different numbers of adults and children in the household. Appendix Table 1 outlines the various methods used:

Appendix Table 1 - Equivalisation methods that were tested

Approach	Weights used	Comments
1a – unequivalised, using income band mid-points	None	
1b – unequivalised, using randomly assigned incomes within band	None	
2a - equivalised	Approach 1b income divided by: (0.67 for first adult + 0.33 for partner and each child aged 14 or over + 0.2 for each child under 14)	
2b - equivalised	Approach 1b income divided by: (0.67 for first adult + 0.33 for partner and each child aged 14 or over + 0.25 for each child under 14)	International analysis based on Minimum Income Standard projects shows the most consistent ‘error’ in equivalisation scales is to underestimate the cost of children compared to adults. This can be because children’s needs are prioritised by households; for example, missing out on a leisure activity may be considered greater hardship for a child than for an adult. Each of these measures involved up-weighting the cost of children to determine what effect this had.
2c – equivalised	Approach 1b income divided by: (0.67 for first adult + 0.33 for partner and each child aged 14 or over + 0.33 for each child under 14)	
2d – equivalised	Approach 1b income divided by: (0.67 for first adult + 0.33 for partner and each child aged 14 or over + 0.67 for each child under 14)	
3 – equivalised, constantly rising economies of scale	Approach 1b income divided by: The square root of the number of people in the household	Assumes constantly rising economies of scale, so a single person receives a weighting of 1 while a four-person household receives a weighting of 2. This may be relevant in context of rising energy bills, where theoretically the cost of heating a home is likely to rise much less proportionately than the number of people in the home (so, for example, the first child adds a lot more than the fourth child).

Different equivalisation measures mean that there may be differences in which decile of the income spectrum a household gets placed in. Appendix Table 2 gives an indication of what proportion of households were in the same, higher or lower deciles when using each equivalised measure, compared to the unequivalised measure (1b). It shows, for example, that around half of households remain in the same income decile following equivalisation, though this drops to 40% using approach 3. Of those who move deciles, around half (equivalent to a quarter of all households) moved by two or more deciles (e.g. moving from the 5th decile to the 3rd decile or vice versa).

Appendix Table 2 - Percentage of households who remained in the same decile after equivalisation, versus those who were in higher or lower deciles than before - using different equivalisation approaches (all households).

Approach	Same decile	Lower decile	Lower decile (by two or more deciles)	Higher decile	Higher decile (by two or more deciles)
2a	48%	26%	9%	25%	12%
2b	51%	24%	7%	24%	8%
2c	50%	25%	10%	25%	13%
2d	50%	24%	12%	26%	15%
3	40%	24%	18%	36%	18%

Having produced different measures of equivalised income, we then tested to see how well correlated each different measure was with our financial wellbeing score (which runs from 0 to 100). This was done separately for all households in the survey, for all working age households, working age households with children and working age households without children. Both Pearson's correlation and Spearman's Rank methods were used to calculate correlation coefficients, given that scatter plots indicated that the relationship was generally monotonic (as income increases, so does financial wellbeing) but not necessarily perfectly linear (the marginal impact of extra income appeared to have a greater impact on financial wellbeing at lower levels of income than at higher levels of income).

Appendix Table 3 - Correlation coefficients between different approaches to equivalising household income and financial wellbeing scores, by different population sub-groups.

		All households		Working age		Has kids, <65		No kids, <65	
Approach		Pearson's	Spearman's Rank	Pearson's	Spearman's Rank	Pearson's	Spearman's Rank	Pearson's	Spearman's Rank
1a	Corr.	.318**	.328**	.386**	.403**	.438**	.468**	.397**	.413**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1b	Corr.	.316**	.326**	.385**	.401**	.440**	.466**	.394**	.412**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2a	Corr.	.339**	.359**	.404**	.431**	.444**	.469**	.374**	.393**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2b	Corr.	.342**	.364**	.405**	.434**	.445**	.470**	.374**	.393**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2c	Corr.	.346**	.371**	.406**	.437**	.446**	.469**	.374**	.393**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2d	Corr.	.353**	.393**	.404**	.443**	.442**	.466**	.374**	.393**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Corr.	.344**	.362**	.408**	.434**	.449**	.472**	.379**	.397**
	P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Results broadly indicated a moderate correlation between household income and financial wellbeing, which strengthens when using equivalised income approaches over the unequivalised versions (though perhaps not to the drastic extent that some might expect). It was notable though that correlation coefficients were stronger for working age households and in particular working age households with children. This is understandable given that households of pensionable age typically see large reductions in income, but not necessarily large reductions in financial wellbeing. Similarly, those of working age but with no children might fall into a number of quite different groups: for example, young adults without children (including students, who typically have low incomes but also low costs) or those taking early retirement.

There was relatively little difference in the correlation figures when using different types of equivalised income measure, suggesting that the relationship between income and financial wellbeing is not particularly sensitive to method of equivalisation used (as long as some form of equivalisation is employed). Therefore, we employed approach 2c (0.33 weighting for children under 14) for our final analysis, based both on its relatively high correlation scores across the board and because the weight employed for children was neither particularly low nor particularly high. For the final analysis, we first filtered the sample to include only working age households and then divided the income measure into deciles.

Additional testing was also done on the dataset to understand the extent to which some households may be under-reporting benefit income in the annual household income measure. This involved regression analysis of equivalised income against financial wellbeing (when controlling for household tenure) and then plotting the residuals against household income for households on different types of benefits. In doing so, we were looking out for households with very low incomes that had higher than expected financial wellbeing for the level of income that they had reported. This analysis suggested that the number of households under-reporting their income appeared relatively low, and that in actual fact households on benefits were typically reporting lower than expected financial wellbeing for their level of income. Students and retired working age households, on the other hand, had higher than expected levels of financial wellbeing, as expected.