

Households Below Average Income publication – pensioner material deprivation indicator technical note

Background

The Households Below Average Income (HBAI) publication produces measures of low income for various groups – working-age adults, children and pensioners. The low income indicators are published on a Before and After Housing Costs basis and are produced for various low income thresholds – for contemporary median income with thresholds of 50, 60 and 70 per cent as well as an indicator for below 50, 60, 70 per cent of 1998/99 median income held constant in real terms.

For child poverty, in addition to the low income indicators there is also a measure of low income and material deprivation defined as those who have a material deprivation score of 25 or more and household income below 70 per cent of contemporary median income, Before Housing Costs. This broadens the measures of child poverty by capturing those children that are going without items considered necessary to enjoy a decent standard of living.

Pensioner material deprivation questions

Material deprivation uses a set of goods, services and experiences, judged using independent academic research to be the best discriminators of deprivation. People are asked if they have the items and if not, why, with responses used to judge if they are materially deprived.

Material deprivation questions for children have been asked in the Family Resources Survey since 2004/05 and a DWP Working Paper¹ concluded that standard questions are not appropriate for pensioners as they tend to respond “do not want” rather than “cannot afford”. A new set of questions were developed for pensioners² and introduced to the Family Resources Survey in 2008/09. Those benefit units that contained someone aged 65 or over were asked these questions. Some of the items differ from the questions for children but the key difference is that the reasons for lacking items have been expanded beyond “cannot afford” to reflect that deprivation also occurs due to ill health, disability or social isolation. Full details are available in annex A.

Material deprivation indicator methodology

A DWP Working Paper by an independent academic³ assessed various options on how to use the questions to create an indicator of pensioner material deprivation. These recommendations have been considered and decisions taken to develop a pensioner material deprivation indicator.

¹ McKay, S (2008) Measuring material deprivation among older people: Methodological Study to revise the Family Resources Survey questions <http://research.dwp.gov.uk/asd/asd5/WP54.pdf>

² McKay, S (2008) Measuring material deprivation among older people: Methodological Study to revise the Family Resources Survey questions <http://research.dwp.gov.uk/asd/asd5/WP54.pdf>

³ McKay, S (2009) Using the new Family Resources Survey question block to measure material deprivation among pensioners <http://research.dwp.gov.uk/asd/asd5/WP89.pdf>

The new indicator will be introduced to the HBAI series in the HBAI publication due to be published in May 2011 as a National Statistics series using data from 2009/10 onwards. Some results from the 2008/09 data were presented in the HBAI publication in May 2010. These showed the percentage of pensioners by quintile who owned each of the items, along with the most common reason given for those cases where they did not have the item. However, the 2008/09 data will not be used within the National Statistics indicator series because there is only 11 months worth of data available since questions were only asked from May 2008. In addition, for those respondents who refused to answer some or all of these questions, no imputation has been carried out on 2008/09 data.

This note outlines the methodology behind the pensioner material deprivation indicator and uses the 2008/09 data as a test dataset to give indicative results and illustrate the reasons for some of the methodological decisions about the indicator. **It should be noted that these indicative results are not National Statistics and do not represent the first set of results from the material deprivation indicator.**

The methodology of the proposed indicator has been heavily based on the recommendations made within the independent academic report. The key aspects of the methodology which build up to an indicator are as follows:

- a) Definition of deprivation
- b) Weighting of the questions to create a deprivation score
- c) Threshold of deprivation

These are each outlined and are then followed by:

- d) 2008/09 indicative results and presentation of the material deprivation indicator
- e) 2009/10 indicator

a) Definition of deprivation

If a pensioner has the item asked about then they are clearly not deprived for that item. Where a pensioner lacks one of the material deprivation items, it is possible for them to give one or more of the following reasons:

- A. I do not have the money for this
- B. This is not a priority for me on my current income
- C. My health/disability prevents me
- D. It is too much trouble/too tiring
- E. There is no one to do this with or help me
- F. This is not something I want
- G. It is not relevant to me
- H. Other

These reasons go beyond deprivation caused by financial restraints to include ill health, disability and social isolation. **We will count those responding with any of reasons A to E and H as being deprived for that item.**

Given the importance of some of these non-financial aspects for pensioners and as possible drivers for deprivation it is important to include a wide range of these follow ups in defining deprivation. To illustrate this, two pensioners

can be considered who lack the same items – e.g. a filling meal, unable to keep house warm, cannot go out socially once a month – where one lacks them because they cannot afford it and the other due to their ill health/disability or social isolation. These would both be considered as deprived on that item because inclusion of any of the follow ups A-E and H classes the pensioner as deprived for that item.

b) Weighting of the questions to create a deprivation score

Following the stage above, it is clear for each pensioner whether they are deprived or not for each individual item. In order to assess their deprivation level across all of the questions it is necessary to weight together their responses to create an overall score.

In line with the independent academic paper, we will be taking an approach which uses prevalence weighting for the items, and therefore is similar to the current methodology for assessing child material deprivation. Prevalence weighting is based on the idea that the more commonplace an item is within society, the more severe is the deprivation when a person does not have it. The 15 material deprivation questions are diverse and have different ownership levels in the population, so lacking certain items can indicate different levels of severity.

A weight is allocated to each item, defined as the prevalence of ownership in the overall pensioner population for that individual item. This is then divided by the sum of these weights across all the questions. The weights are multiplied to 100 to make them easier to interpret as a final score. Where a pensioner is deprived for a given question they are allocated that score. Scores are then added up across all of the items for each pensioner giving scores ranging from 0 (having all the items) to 100 (lacking all the items). Details of the weights and final scores for the 2008/09 indicative data are given in annex B.

It should be noted that the weights assigned to the pensioner material deprivation items tend to be higher than the child material deprivation items because they are more commonplace in society. Therefore where a pensioner lacks a given item they have a higher weight attached and so going without an individual item is more significant.

c) Threshold of deprivation

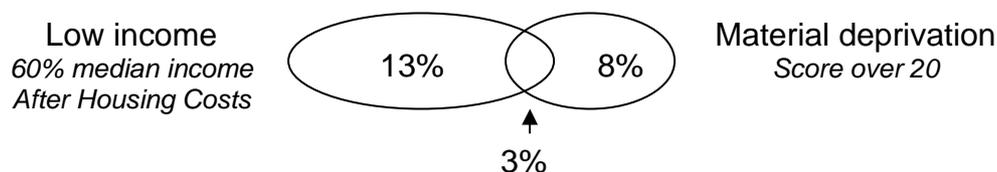
Following the stage above, each pensioner has a score between 0 and 100 which needs to be judged against a deprivation “threshold” to define who is deprived and who is not. Although the child poverty threshold is drawn at 25 it is not appropriate to also use this since the questions which derive the score are different and therefore the overall scores are not directly comparable.

A threshold of 20 is used for the pensioner material deprivation indicator - the independent academic paper noted that setting a threshold between 15 and 20 would be credible and defensible on academic grounds. It noted specifically that a threshold of 20 would be: “...seen as plausible...”

*consistent with fewer pensioners being materially deprived than other groups..... consistent with other studies of material deprivation....*⁴ . A threshold of 20 would class anyone who lacks 4 of the items as deprived and all those who lack just 2 items as not deprived. For pensioners who lack 3 items, some of them would be classed as deprived and some not, depending on the specific items because of the weighting.

d) 2008/09 indicative results and presentation of the material deprivation indicator

The data from 2008/09 which fed into the indicative results has coverage of 8.4m pensioners. This is less than the population of pensioners because data is only available for May 2008 to March 2009, for those pensioners aged 65 or over in benefit units with no dependent children, who answered all the material deprivation questions. For that group, indicative results show 11 per cent (or 900,000) as materially deprived in 2008/09⁵ compared to 16 per cent in low income. The diagram below shows the overlap of these groups:



This clearly shows that the overlap is relatively small at 3 per cent (or 200,000), illustrating that material deprivation is a different concept from low income. There are two key groups of interest here - those materially deprived but not in low income at 8 per cent (or 700,000) and those in low income but not materially deprived at 13 per cent (or 1.1 million).

For the group in low income but not material deprivation, this reflects the fact that in-year income is not the only way to obtain goods and services but this can also be done using wealth, help or gifts from family and friends as well as accumulation over time. In addition, some of the material deprivation items revolve around social participation as well as tangible goods and as such do not necessarily have a high cost attached.

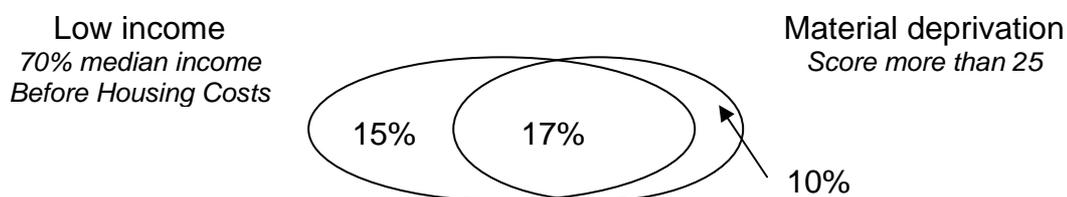
For those who are materially deprived but not in low income, this reflects that deprivation can be caused by both financial and non-financial reasons. Although the 8 per cent are not in low income, it is common for them to cite financial reasons for their deprivation as well as non-financial – potentially because their income is only just above the poverty threshold or due to low wealth. Non-financial factors also contributing to their deprivation include ill health, disability or social isolation.

For child poverty, material deprivation is presented as whether the child is materially deprived and in low income (defined here as having an equivalised

⁴ McKay, S (2009) Using the new Family Resources Survey question block to measure material deprivation among pensioners <http://research.dwp.gov.uk/asd/asd5/WP89.pdf>

⁵ Based on 2008/09 Family Resources Survey where data is available May 2008 to March 2009, for those pensioners aged 65 or over in benefit units with no dependent children who answered all the material deprivation questions.

income below 70 per cent of median income), which is appropriate because deprivation is considered solely due to financial reasons. For child poverty, in 2008/09, this results in the following splits:



The pattern seen here for children is quite different from that seen for pensioners, with material deprivation for children much more closely aligned with in year relative poverty – most likely because deprivation is captured for financial reasons. However there are also a large number of children living in material deprivation who are not in low income households and vice versa which may in part reflect the higher volatility of income for this group. For pensioners, the concept of material deprivation is broader, incorporating deprivation for non-financial reasons as well as financial. If the overlap for pensioners is considered at 70 per cent of median income to mirror the child poverty indicator, the same story still applies, i.e. that the overlap for pensioners is much smaller.

This section has shown that the concept of pensioner material deprivation is broad and different from low income, therefore it is appropriate to present as a separate indicator. Contextual information will be included in the annex of the HBAI publication on the extent of the overlap between the two separate indicators of low income and material deprivation for the population aged 65 and over.

e) 2009/10 indicator

The methodology as described will apply for the 2009/10 indicator, to be published in HBAI in May 2011. The one addition will be where there is item or unit non-response for a pensioner aged 65 or over, when **answers to the questions will be imputed** so the indicator will have full coverage of that population.

The proportion of pensioner material deprivation question responses being imputed is 3 per cent. A hot-decking methodology has been used for the imputation with the factors being family status, age, tenure, income, ethnicity, savings and whether there is a disabled person in the benefit unit. This method of imputation is in line with how many missing values for income variables are imputed.

ANNEX A - Pensioner Material Deprivation Questions

First set of questions (Yes/No response):

- Q1. Do you eat at least one filling meal a day?
- Q2. Do you go out socially, either alone or with other people, at least once a month?
- Q3. Do you see your friends or family at least once a month?
- Q4. Do you take a holiday away from home for a week or more at least once a year?
- Q5. Would you be able to replace your cooker if it broke down?
- Q6. Is your home kept in a good state of repair?
- Q7. Are your heating, electrics, plumbing and drains kept in good working order?
- Q8. Do you have a damp-free home?
- Q9. Is your home kept adequately warm?
- Q10. Without cutting back on essentials, are you able to pay regular bills like electricity, gas or Council tax?
- Q11. Do you have a telephone to use, whenever you need it?
- Q12. Do you have access to a car or taxi, whenever you need it?
- Q13. Do you have your hair done or cut regularly?
- Q14. Do you have a warm waterproof coat?
- Q15. Would you be able to pay an unexpected expense of £200?

If answered no at Q1-14, ask follow up question for each relevant response:

Why do you not/would you not be able to [item where **no** stated at Q1-14]?

- A. I do not have the money for this
- B. This is not a priority for me on my current income
- C. My health/disability prevents me
- D. It is too much trouble/too tiring
- E. There is no one to do this with or help me
- F. This is not something I want
- G. It is not relevant to me
- H. Other (not on showcard)
- I. DK (not on showcard)

If answered **yes** at Q15, ask follow up question:

How would you pay for this [unexpected expense of £200]?

- A. I would use my own income but would need to cut back on essentials
- B. I would use my own income but would not need to cut back on essentials
- C. I would use my savings
- D. I would use a form of credit (e.g. credit card or take out a loan)
- E. I would get the money from friends or family as a gift or loan.
- F. Other (not on showcard)
- G. DK (not on showcard)

ANNEX B - Pensioner Material Deprivation Scores

Question	Weight	Final scores
At least one filling meal a day	0.99	7.34
Go out socially at least once a month	0.73	5.38
See friends or family at least once a month	0.94	7.00
Take a holiday away from home	0.57	4.20
Able to replace cooker if it broke down	0.88	6.52
Home kept in good state of repair	0.96	7.10
Heating, electrics, plumbing and drains working	0.98	7.27
Have a damp-free home	0.94	6.99
Home kept adequately warm	0.95	7.08
Able to pay regular bills	0.96	7.10
Have a telephone to use, whenever needed	0.99	7.31
Have access to car or taxi, whenever needed	0.88	6.54
Have hair done or cut regularly	0.88	6.55
Have a warm waterproof coat	0.98	7.24
Able to pay an unexpected expense of £200	0.86	6.36