

# Appendix 6

## Pan-European comparisons using HBAI data

### Background

At the Lisbon European Council held in March 2000, the European Union set itself the

*“strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion”.*

Progress in achieving this goal was to be assessed regularly on the basis of a list of ‘structural indicators’. These structural indicators are included in the European Commission’s Synthesis Reports, submitted each year to the Spring European Council, which acts as the focal point for discussion of progress on the economic reform agenda agreed at Lisbon.

These indicators cover general economic background, employment, innovation and research, economic reform, environment and social cohesion. The specific social cohesion indicators being: distribution of income, risk of poverty, persistent risk of poverty, regional cohesion, early school-leavers and long-term unemployment.

As part of the wider reform package, the Lisbon Council called for a decisive impact on the eradication of poverty throughout the Union by 2010. This was to be carried forward by, amongst other things:

- National Action Plans setting out strategies for combating poverty and social exclusion;
- development of commonly agreed EU-wide indicators;
- a Community Action Programme to promote networking, exchanges of best practice and other activities to foster co-operation in the fight against exclusion.

This work on exclusion reached an important milestone at the Laeken European Council in December 2001. This endorsed:

- the first ever Joint Inclusion Report on Social Inclusion - based on a synthesis of all fifteen National Action Plans, supplemented by some EU-wide analysis; and
- agreed indicators, aimed at objectively capturing the complex and multi-dimensional reality of poverty and exclusion at the European level.

There is an increasing prominence given to these statistical indicators across Europe, as an essential part of the ‘open method of co-ordination’ to tackle social exclusion. The list of commonly agreed indicators from Laeken was used by all member states in their second

National Action Plans on Social Inclusion, most of which were published in July 2003. A detailed analysis of the UK’s performance against the ‘commonly agreed’ indicators formed a central part of the UK’s National Action Plan.

Since July, work has included the production of a draft of the Joint Inclusion Report by the European Commission, together with commentary prepared by national experts, which is due to be agreed by the member states in early 2004. Future work involves refining the Laeken indicators, and the further development of the National Action Plan.

Understandably, therefore, there has been a rising interest in possible comparisons between the findings of HBAI and those of its European equivalents.

At present however, such direct comparisons are not possible. It has been suggested, however, that HBAI consistently differs in its estimates of poverty in relation to these studies, especially for children. One of the underlying reasons for this may be the use of different equivalence scales and it is this issue which the following analysis seeks to investigate.

### Future Child Poverty Measurement

Following consultation, it was announced in December 2003 that from 2004/5, the UK government will measure child poverty using a three-tiered approach (absolute, relative and composite), and that all tiers will utilise the Modified OECD equivalence scale.

### Equivalence Scales

Income-based analysis, such as HBAI, uses equivalised household income as a measure of poverty and living standards.

Equivalisation, the process of adjusting household income to account for variations in household size and composition, can be carried out on a number of different scales each of which can lead to slightly differing results. (For more information regarding equivalisation see **Appendix 2**.)

HBAI results are adjusted using the McClements equivalisation scale, while analysis carried out by Eurostat for the European Union uses the Modified OECD scale.

The McClements scale takes a couple with no children to be its base with an equivalence value of one, while on the Modified OECD scale a single adult is equal to one. To assess the (theoretical) differences between the two scales the Modified OECD weights were converted to the same base as McClements.

**Table 6.1 (BHC): Comparison of different equivalence scales**

Equivalence scales (BHC)	Modified OECD	Modified OECD rescaled to couple without children=1	McClements
First Adult	1	0.67	0.61
Spouse	0.5	0.33	0.39
Other Second Adult	0.5	0.33	0.46
Third Adult	0.5	0.33	0.42
Subsequent Adults	0.5	0.33	0.36
Children aged under 14yrs <sup>1</sup>	0.3	0.2	0.2
Children aged 14yrs and over <sup>1</sup>	0.5	0.33	0.3

**Notes:**

1. The McClements scale varies by age within these groups; appropriate average values are shown in the table.

**Table 6.1** shows a comparison of the different scales. The Modified OECD scale gives more weight to the first adult and less to second and subsequent adults than does the McClements. This has the effect of giving single adult households a smaller equivalised income relative to couples. Analysis has shown that the use of the Modified OECD scale has a broadly neutral effect on the low-income thresholds.

The Modified OECD scale is on a Before Housing Costs basis only, unlike the McClements scale, which has different BHC and AHC values.

**Findings**

In order to assess the impact of these different scales on HBAI estimates of low-income, figures were calculated from the FRS using the Modified OECD scale, and were compared with results using the McClements scale.

**Table 6.2** shows the percentage of individuals below various thresholds of income using the Modified OECD scale and makes a comparison with the same percentages using the McClements scale. Modified OECD estimates appear consistently very slightly higher than those produced on the McClements scale.

**Table 6.3** shows the percentage of children below various thresholds of income using the Modified OECD scale, and compares this with the McClements scales. Modified OECD scales show a higher proportion of children living in households with low incomes than on the McClements scale. The size of this effect shows little change across the years, and the difference is smaller on the lowest thresholds of the mean and median.

**Table 6.4** shows the percentage of working-age adults below various thresholds of income using the Modified OECD and compares it with results using the McClements scale. Modified OECD estimates tend to be very slightly higher than those produced on the McClements scale, although this is less so than for other client groups.

**Table 6.5** shows the percentage of pensioners below various thresholds of income using the Modified OECD scale, and the comparison with using the McClements scale. The Modified OECD scale consistently shows more

pensioners below these thresholds than the McClements scale. This effect is more pronounced for the higher thresholds of mean and median.

**Family Type and Economic Status**

**Tables 6.6 and 6.7** show the risk for individuals in 2002/03 of falling into various low-income groups according to family type and economic status, and compares the results using the two equivalence scales. The following observations are based on individuals living in households with below 60 per cent of median income:

- When individuals are categorised according to their family type, the use of differing equivalence scales results in little change for some groups. The groups that are affected, however, are both male and female single pensioners and those living in lone-parent families. All these groups have a significantly greater risk of falling below these low-income thresholds when calculated using the Modified OECD scale, with the biggest difference occurring for single parents and lone-parents.
- As with family type, the use of different equivalence scales when looking at economic status of the family affects some categories but not others. Those that differ most depending on the scale used are workless 'other inactive' families, which include single parents not in work. Again the risk of relatively low incomes is higher on the Modified OECD scale

**Conclusion**

In general, replacing the McClements scale with the Modified OECD scale resulted in the following:

- A slight increase in the number of individuals below low-income thresholds
- A greater risk of low income for children with one parent and single pensioners.
- Little effect for those of working-age, other than single parents

Results for children and pensioners are known to be particularly sensitive to the choice of equivalence scale because of the relatively high concentration of these groups around the 60 per cent of median income threshold

**Table 6.2 (BHC): Percentage of individuals below various thresholds of contemporary income using Modified OECD equivalisation, and comparison with McClements**

Percentage of individuals	Source: FRS								
	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01	2001/02	2002/03
<b>Modified OECD Equivalisation</b>									
<b>Thresholds of mean</b>									
40 per cent	8	8	9	9	10	9	10	9	9
50 per cent	19	18	20	20	20	20	20	20	19
60 per cent	30	30	30	30	31	30	31	30	30
<b>Thresholds of median</b>									
50 per cent	10	9	10	11	10	10	10	10	10
60 per cent	19	18	19	19	19	19	18	18	18
70 per cent	28	27	28	28	28	28	27	27	27
<b>Difference between Modified OECD and McClements<sup>1</sup></b>									
<b>Thresholds of mean</b>									
40 per cent	0	0	1	0	1	0	1	0	0
50 per cent	1	1	2	1	1	1	1	1	1
60 per cent	1	1	1	1	1	0	1	1	1
<b>Thresholds of median</b>									
50 per cent	1	0	0	1	0	1	0	1	1
60 per cent	1	1	1	1	1	1	1	1	1
70 per cent	1	1	1	1	1	1	1	1	1

**Notes:**

1. A positive difference indicates Modified OECD 'risk' of low income is higher.

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**Table 6.3 (BHC): Percentage of children below various thresholds of contemporary income using Modified OECD equivalisation, and comparison with McClements**

Percentage of children	Source: FRS								
	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01	2001/02	2002/03
<b>Modified OECD Equivalisation</b>									
<b>Thresholds of mean</b>									
40 per cent	10	10	11	12	13	11	11	10	10
50 per cent	26	24	27	28	28	27	25	25	24
60 per cent	38	38	39	40	41	40	39	38	37
<b>Thresholds of median</b>									
50 per cent	12	11	14	14	14	12	12	11	11
60 per cent	26	24	27	27	26	26	24	23	23
70 per cent	36	35	37	37	37	37	35	35	34
<b>Difference between Modified OECD and McClements<sup>1</sup></b>									
<b>Thresholds of mean</b>									
40 per cent	1	1	0	1	1	0	0	0	0
50 per cent	3	2	2	2	2	2	1	2	2
60 per cent	1	2	1	1	2	1	1	1	1
<b>Thresholds of median</b>									
50 per cent	1	0	2	1	2	1	1	1	1
60 per cent	3	3	2	2	2	3	3	2	2
70 per cent	2	1	1	1	2	2	2	2	2

**Notes:**

1. A positive difference indicates Modified OECD 'risk' of low income is higher.

**Table 6.4 (BHC): Percentage of working-age adults below various thresholds of contemporary income using Modified OECD equivalisation, and comparison with McClements**

Percentage of working-age adults									Source: FRS
	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01	2001/02	2002/03
<b>Modified OECD Equivalisation</b>									
<b>Thresholds of mean</b>									
40 per cent	7	7	7	8	8	8	9	8	9
50 per cent	15	14	15	15	15	16	16	16	16
60 per cent	23	22	23	23	23	23	24	23	23
<b>Thresholds of median</b>									
50 per cent	8	8	8	9	8	9	9	9	9
60 per cent	15	14	15	15	15	15	15	15	15
70 per cent	21	21	22	21	21	21	22	21	21
<b>Difference between Modified OECD and McClements<sup>1</sup></b>									
<b>Thresholds of mean</b>									
40 per cent	0	0	0	0	0	0	0	0	1
50 per cent	0	0	0	0	0	1	1	1	1
60 per cent	0	0	0	0	-1	-1	0	0	0
<b>Thresholds of median</b>									
50 per cent	0	0	0	1	0	1	0	1	0
60 per cent	1	1	0	0	1	1	1	1	1
70 per cent	0	1	1	0	0	0	1	0	0

**Notes:**

1. A positive difference indicates Modified OECD 'risk' of low income is higher.

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**Table 6.5 (BHC): Percentage of pensioners below various thresholds of contemporary income using Modified OECD equivalisation, and comparison with McClements**

Percentage of pensioners	Source: FRS								
	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01	2001/02	2002/03
<b>Modified OECD Equivalisation</b>									
<b>Thresholds of mean</b>									
40 per cent	10	10	11	11	13	12	12	12	12
50 per cent	24	24	24	25	28	26	26	26	25
60 per cent	43	43	42	42	44	44	43	43	42
<b>Thresholds of median</b>									
50 per cent	12	11	12	13	13	13	12	13	13
60 per cent	23	23	24	24	26	24	24	24	24
70 per cent	40	39	39	39	40	39	38	38	38
<b>Difference between Modified OECD and McClements<sup>1</sup></b>									
<b>Thresholds of mean</b>									
40 per cent	2	2	2	1	2	2	2	2	2
50 per cent	3	2	3	2	3	3	3	2	2
60 per cent	4	4	4	3	2	5	3	3	4
<b>Thresholds of median</b>									
50 per cent	2	1	2	2	1	2	1	2	3
60 per cent	2	1	3	2	3	2	3	2	3
70 per cent	4	4	4	4	4	4	4	4	4

**Notes:**

1. A positive difference indicates Modified OECD 'risk' of low income is higher.

**Table 6.6 (BHC): Risk of falling into low-income groups of individuals by family type income using Modified OECD equivalisation, and comparison with McClements**

Percentage of individuals							Source: FRS 2002/03
Family type	Income Thresholds						All individuals (millions)
	Below mean			Below median			
	40%	50%	60%	50%	60%	70%	
<b>Modified OECD Equivalisation</b>							
Pensioner couple	10	23	38	11	21	34	6.9
Single male pensioner	10	24	45	11	23	40	1.1
Single female pensioner	16	29	48	17	27	43	3.0
Working-age couple with children	8	16	26	9	16	23	19.7
Working-age single with children	13	42	62	16	39	58	5.0
Working-age couple without children	6	9	13	6	8	12	10.3
Single working-age male without children	11	18	26	12	18	24	7.1
Single working-age female without children	11	18	26	11	18	23	4.0
<b>All individuals</b>	<b>9</b>	<b>19</b>	<b>30</b>	<b>10</b>	<b>18</b>	<b>27</b>	<b>57</b>
<b>Difference between Modified OECD and McClements<sup>1</sup></b>							
Pensioner couple	0	0	0	0	0	0	6.9
Single male pensioner	4	5	11	4	6	12	1.1
Single female pensioner	5	6	9	6	5	10	3.0
Working-age couple with children	0	0	0	0	1	0	19.7
Working-age single with children	1	8	4	4	8	6	5.0
Working-age couple without children	0	0	-1	0	-1	0	10.3
Single working-age male without children	0	0	0	1	1	0	7.1
Single working-age female without children	0	0	0	0	1	-1	4.0
<b>All Individuals</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>57</b>

**Notes:**

1. A positive difference indicates Modified OECD 'risk' of low income is higher.

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**Table 6.7 (BHC): Risk of falling into low-income groups of individuals by economic status income using Modified OECD equivalisation, and comparison with McClements**

Percentage of individuals							Source: FRS 2002/03
Economic status	Income Thresholds						All individuals (millions)
	Below mean			Below median			
	40%	50%	60%	50%	60%	70%	
<b>Modified OECD Equivalisation</b>							
One or more full-time self-employed	12	18	26	12	18	24	5.1
Single/couple all in full-time work	1	3	6	2	3	5	14.3
Couple, one in full-time work, one in part-time work	1	3	9	1	3	6	8.3
Couple, one in full-time work, one not working	5	15	29	6	14	26	6.6
No one in full-time work, one or more in part-time work	13	25	40	14	24	36	5.3
Workless, head or spouse aged 60 or over	14	28	47	15	27	42	9.7
Workless, head or spouse unemployed	44	67	80	47	66	78	1.6
Workless, other inactive	22	51	68	25	49	65	6.2
<b>All Individuals</b>	<b>9</b>	<b>19</b>	<b>30</b>	<b>10</b>	<b>18</b>	<b>27</b>	<b>57.0</b>
<b>Difference between Modified OECD and McClements<sup>1</sup></b>							
One or more full-time self-employed	0	-1	0	0	0	1	5.1
Single/couple all in full-time work	0	0	0	0	0	0	14.3
Couple, one in full-time work, one in part-time work	0	0	0	0	0	-1	8.3
Couple, one in full-time work, one not working	0	1	1	0	2	2	6.6
No one in full-time work, one or more in part-time work	1	1	0	1	1	1	5.3
Workless, head or spouse aged 60 or over	2	2	4	2	3	4	9.7
Workless, head or spouse unemployed	2	0	0	2	2	0	1.6
Workless, other inactive	0	5	1	2	6	3	6.2
<b>All Individuals</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>57.0</b>

**Notes:**

1. A positive difference indicates Modified OECD 'risk' of low income is higher.