

## **Low Income Dynamics – measures of persistence of low income**

### **Background**

This paper describes a review of the Department of Work and Pensions' measures of the persistence of low income. These measures show trends in relation to individuals who are persistently recorded in low-income households. Statistics have also been produced on the likelihood of individuals either entering or exiting low income.

The measures are derived from the British Household Panel Survey, a longitudinal survey designed to capture information on a nationally representative sample of the population. It is run by the Institute for Social and Economic Research at the University of Essex.

Information has been produced annually on successive waves of the BHPS, from 1991. They were first published in 1993/94 Households Below Average Income (HBAI), in 1996; and then as a separate paper from summer 2002 to summer 2007 with results republished in the following Spring HBAI.

Last summer Department for Work and Pensions statisticians carried out a review of the persistent low income series.

This was done because the Department wanted to ensure that the series was consistent in its calculation of estimates across years, and so there would be greater comparability over time.

The Department also wanted to ensure that the methodology behind measures of persistent low income is consistent as far as possible with measures of relative and absolute low income (which are used to measure progress against the Government's Public Service Agreements on tackling child and pensioner poverty) when they are presented together in the HBAI report.

It was appropriate to carry out a review at this time, as persistent low income estimates have gained greater prominence recently. The consultation "Ending child poverty: making it happen"<sup>1</sup> led by the Child Poverty Unit has proposed that persistent low-income be one of the main measures of reducing child poverty. So it is important to produce as an accurate as possible a back series of persistent low-income to give the appropriate context before such estimates possibly becomes measures of poverty in the future.

### **Review of measures**

Since summer 2008 DWP statisticians began a review of each BHPS dataset, going back to 1991, to examine whether the measures of income in the series were consistent

- year-on-year, unless there had been a relevant policy change

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<sup>1</sup> <http://www.dcsf.gov.uk/consultations/downloadableDocs/8061-CPU-Ending%20Child%20Poverty.pdf>

- compared to those used to measure relative and absolute low income, produced in the HBAI report

All sources of income have been examined, and as a result there have been several areas where methodological improvements could be made. These include ensuring that:

- all forms of state support (both benefits and tax credits) are being captured for the year in question
- the income tax and NICs regime is accurately reflected each year, when calculating net incomes.
- the best possible estimate was made of income from investments where respondents were unsure of the precise amount

Further to this, DWP statisticians have also ensured consistent use of datasets and deflators throughout the publication.

DWP statisticians have reviewed all the potential improvements and have made the professional judgment that the changes should be carried out, and statistics for earlier years should be revised. These changes have been approved by the DWP Statistics Head of Profession and have been made in a manner that is consistent with the United Kingdom Statistics Authority Code of Practice for Official Statistics, and the National Statistics Protocol on Revisions.

### **Impact of the revisions**

A minority of Opportunity for All measures of persistent low income across the time series will change as a result of the revision and in most cases the revisions will not be substantial. Annex A shows the revised tables and the previously published tables.

## Annex A

### Revised tables

Table 6.1 (BHC): Opportunity for all indicators

Source: BHPS 1991-2006				
Percentage of group below threshold in at least 3 out of 4 years				
OFA definition			Alternative definition <sup>1</sup>	
	Below 60% of median	Below 70% of median	In bottom 20 per cent	In bottom 30 per cent
<b>All individuals</b>				
1991 to 1994	12	20	14	24
1992 to 1995	12	20	14	24
1993 to 1996	11	20	14	24
1994 to 1997	12	20	15	24
1995 to 1998	11	20	14	24
1996 to 1999	12	20	15	24
1997 to 2000	12	20	14	24
1998 to 2001	12	19	14	24
1999 to 2002	11	19	14	24
2000 to 2003	10	19	14	24
2001 to 2004	10	19	14	24
2002 to 2005	9	17	13	23
2003 to 2006	9	17	13	23
Change between last two periods	-1	-1	0	-1
<b>Children</b>				
1991 to 1994	19	29	22	33
1992 to 1995	18	28	21	32
1993 to 1996	17	27	20	33
1994 to 1997	17	27	21	32
1995 to 1998	17	28	20	32
1996 to 1999	17	28	21	33
1997 to 2000	17	27	21	32
1998 to 2001	17	26	21	32
1999 to 2002	16	27	19	32
2000 to 2003	14	25	18	31
2001 to 2004	12	23	17	30
2002 to 2005	11	21	15	29
2003 to 2006	10	20	16	27
Change between last two periods	-1	-1	0	-2
<b>Working-age adults</b>				
1991 to 1994	8	13	9	15
1992 to 1995	8	13	9	16
1993 to 1996	7	13	9	16
1994 to 1997	7	12	9	16
1995 to 1998	7	13	9	16
1996 to 1999	7	13	9	16
1997 to 2000	7	12	9	15
1998 to 2001	7	12	8	15
1999 to 2002	7	12	8	15
2000 to 2003	6	12	8	16
2001 to 2004	6	12	9	16
2002 to 2005	6	11	9	15
2003 to 2006	6	11	9	15
Change between last two periods	-1	0	0	0

**Table 6.1 (BHC) cont: Opportunity for all indicators**

Source: BHPS 1991-2006				
Percentage of group below threshold in at least 3 out of 4 years				
OFA definition			Alternative definition <sup>1</sup>	
	Below 60% of median	Below 70% of median	In bottom 20 per cent	In bottom 30 per cent
<b>Pensioners</b>				
1991 to 1994	19	37	23	43
1992 to 1995	19	35	24	43
1993 to 1996	19	34	25	43
1994 to 1997	21	35	26	43
1995 to 1998	20	36	25	43
1996 to 1999	20	36	26	42
1997 to 2000	20	38	26	45
1998 to 2001	21	37	27	44
1999 to 2002	19	37	25	44
2000 to 2003	18	36	25	43
2001 to 2004	17	36	25	44
2002 to 2005	16	32	24	42
2003 to 2006	16	31	24	40
Change between last two periods	0	-1	-1	-2

**Notes:**

1. Some of the figures presented in the table above have seen revisions since their publication in the last (2006/07) HBAI report. This is due to changes to the base data set made by the data providers and methodological improvements.

2. There is a higher density of individuals around 60% and 70% median income. The alternative definition is presented for validation purposes as it presents estimates that are not vulnerable to errors in measuring median income.

**Table 6.1 (AHC): Opportunity for all indicators**

Source: BHPS 1991-2006				
Percentage of group below threshold in at least 3 out of 4 years				
OFA definition			Alternative definition <sup>1</sup>	
	Below 60% of median	Below 70% of median	In bottom 20 per cent	In bottom 30 per cent
<b>All individuals</b>				
1991 to 1994	15	22	14	23
1992 to 1995	15	23	14	24
1993 to 1996	14	22	14	24
1994 to 1997	15	22	15	24
1995 to 1998	15	22	14	24
1996 to 1999	15	21	14	24
1997 to 2000	14	21	14	24
1998 to 2001	14	21	14	24
1999 to 2002	13	21	13	24
2000 to 2003	12	21	13	24
2001 to 2004	11	20	13	24
2002 to 2005	11	19	13	22
2003 to 2006	9	18	13	23
Change between last two periods	-1	-1	0	0
<b>Children</b>				
1991 to 1994	25	32	23	34
1992 to 1995	23	32	22	33
1993 to 1996	22	31	22	33
1994 to 1997	23	31	22	33
1995 to 1998	23	31	22	34
1996 to 1999	23	31	23	33
1997 to 2000	22	30	22	33
1998 to 2001	21	30	22	34
1999 to 2002	20	30	21	34
2000 to 2003	17	28	19	33
2001 to 2004	15	27	19	32
2002 to 2005	16	26	19	31
2003 to 2006	14	24	19	31
Change between last two periods	-2	-1	0	1
<b>Working-age adults</b>				
1991 to 1994	10	14	9	16
1992 to 1995	10	16	10	17
1993 to 1996	10	15	10	16
1994 to 1997	10	14	10	16
1995 to 1998	10	14	9	17
1996 to 1999	9	14	9	16
1997 to 2000	9	14	9	16
1998 to 2001	9	14	9	16
1999 to 2002	8	14	9	16
2000 to 2003	8	14	9	17
2001 to 2004	8	13	9	16
2002 to 2005	8	13	9	16
2003 to 2006	7	13	9	17
Change between last two periods	0	0	0	1

**Table 6.1 (AHC) cont: Opportunity for all indicators**

Source: BHPS 1991-2006				
Percentage of group below threshold in at least 3 out of 4 years				
OFA definition			Alternative definition <sup>1</sup>	
	Below 60% of median	Below 70% of median	In bottom 20 per cent	In bottom 30 per cent
<b>Pensioners</b>				
1991 to 1994	21	36	17	38
1992 to 1995	20	36	17	39
1993 to 1996	19	35	18	38
1994 to 1997	21	35	20	40
1995 to 1998	23	34	22	38
1996 to 1999	23	34	22	37
1997 to 2000	23	35	22	38
1998 to 2001	22	35	23	38
1999 to 2002	18	34	20	38
2000 to 2003	17	33	20	37
2001 to 2004	16	31	20	37
2002 to 2005	14	27	17	33
2003 to 2006	11	24	16	32
Change between last two periods	-3	-3	-2	-2

**Notes:**

1. Some of the figures presented in the table above have seen revisions since their publication in the last (2006/07) HBAI report. This is due to changes to the base data set made by the data providers and methodological improvements.

2. There is a higher density of individuals around 60% and 70% median income. The alternative definition is presented for validation purposes as it presents estimates that are not vulnerable to errors in measuring median income.

## Previously published tables

Table 6 (BHC): Opportunity for all indicators

Source: BHPS 1991-2005

	Percentage of group below threshold in at least 3 out of 4 years			
	OFA definition		Alternative definition <sup>1</sup>	
	Below 60% of median	Below 70% of median	In bottom 20 per cent	In bottom 30 per cent
<b>All individuals</b>				
1991 to 1994	12	20	14	24
1992 to 1995	11	20	14	24
1993 to 1996	11	20	14	24
1994 to 1997	12	20	14	24
1995 to 1998	11	20	14	24
1996 to 1999	11	20	14	24
1997 to 2000	12	20	14	24
1998 to 2001	12	20	14	24
1999 to 2002	11	20	14	24
2000 to 2003	11	20	14	24
2001 to 2004	10	19	13	24
2002 to 2005	9	18	13	23
<b>Children</b>				
1991 to 1994	20	29	22	33
1992 to 1995	18	29	21	32
1993 to 1996	17	29	20	33
1994 to 1997	17	28	20	32
1995 to 1998	17	28	20	32
1996 to 1999	16	27	20	32
1997 to 2000	17	27	20	32
1998 to 2001	17	26	21	31
1999 to 2002	17	27	20	31
2000 to 2003	15	26	18	31
2001 to 2004	13	24	17	30
2002 to 2005	11	22	16	28
<b>Working-age adults</b>				
1991 to 1994	8	13	9	15
1992 to 1995	8	14	9	16
1993 to 1996	7	14	9	17
1994 to 1997	7	13	9	16
1995 to 1998	7	13	9	16
1996 to 1999	7	13	9	15
1997 to 2000	7	13	9	15
1998 to 2001	7	13	9	16
1999 to 2002	7	12	8	16
2000 to 2003	7	13	9	16
2001 to 2004	7	12	9	16
2002 to 2005	6	12	9	16
<b>Pensioners</b>				
1991 to 1994	17	35	21	41
1992 to 1995	17	33	21	41
1993 to 1996	17	34	22	41
1994 to 1997	19	35	25	43
1995 to 1998	19	35	24	42
1996 to 1999	20	36	24	43
1997 to 2000	20	37	25	45
1998 to 2001	21	37	26	44
1999 to 2002	19	37	24	44
2000 to 2003	18	34	24	42
2001 to 2004	16	34	23	43
2002 to 2005	15	31	23	40

### Notes:

1. Some of the figures presented in the table above have seen revisions since their publication in the last (2005/06) HBAI report. This is due to changes to the base dataset made by the data providers.

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**Table 6 (AHC): Opportunity for all indicators**

Source: BHPS 1991-2005

	Below threshold in at least 3 out of 4 years			
	OFA definition		Alternative definition <sup>1</sup>	
	Below 60% of median	Below 70% of median	In bottom 20 per cent	In bottom 30 per cent
<b>All individuals</b>				
1991 to 1994	15	23	13	23
1992 to 1995	15	23	13	24
1993 to 1996	15	22	14	24
1994 to 1997	15	22	14	24
1995 to 1998	15	22	14	24
1996 to 1999	15	21	14	23
1997 to 2000	14	21	14	23
1998 to 2001	14	21	14	24
1999 to 2002	13	21	13	24
2000 to 2003	12	21	13	24
2001 to 2004	12	20	13	23
2002 to 2005	11	19	13	22
<b>Children</b>				
1991 to 1994	25	33	23	34
1992 to 1995	23	33	22	34
1993 to 1996	23	32	22	34
1994 to 1997	24	32	23	34
1995 to 1998	24	31	22	34
1996 to 1999	23	30	22	32
1997 to 2000	22	30	21	32
1998 to 2001	22	30	22	34
1999 to 2002	21	30	21	34
2000 to 2003	19	30	20	33
2001 to 2004	17	28	19	32
2002 to 2005	17	26	20	31
<b>Working-age adults</b>				
1991 to 1994	11	15	10	16
1992 to 1995	11	16	10	17
1993 to 1996	11	16	11	17
1994 to 1997	11	15	10	16
1995 to 1998	10	15	9	16
1996 to 1999	10	15	9	16
1997 to 2000	9	14	9	16
1998 to 2001	9	15	9	16
1999 to 2002	9	14	9	16
2000 to 2003	8	15	9	17
2001 to 2004	8	14	9	16
2002 to 2005	8	13	10	16
<b>Pensioners</b>				
1991 to 1994	18	35	14	36
1992 to 1995	17	34	14	37
1993 to 1996	17	34	15	35
1994 to 1997	19	34	17	37
1995 to 1998	21	33	18	36
1996 to 1999	21	33	19	36
1997 to 2000	22	34	20	37
1998 to 2001	22	34	21	37
1999 to 2002	18	33	19	36
2000 to 2003	16	31	17	35
2001 to 2004	15	30	17	35
2002 to 2005	13	27	16	33

**Notes:**

1. Some of the figures presented in the table above have seen revisions since their publication in the last (2005/06) HBAI report. This is due to changes to the base dataset made by the data providers.

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