

Low Income Dynamics in 1990s Britain

**Sarah Jarvis and
Stephen P Jenkins**

IDS Bulletin Vol 29 No 1 1998

1 Introduction*

In this article we analyse the dynamics of low income in 1990s Britain using data from the first four annual waves of the British Household Panel Survey (BHPS).¹

We document the size of the 'persistent poverty' problem and amount of low-income turnover. Low-income exit and re-entry rates are also calculated. In addition we describe the characteristics of the people who were persistently poor, those making transitions out of low income, and those making transitions into low income. All the patterns we describe are robust as to the choice between two definitions of what the low income cut-off is.

We show that there is much turnover in the low-income population. Although there is a small group of people who are persistently poor, it is the relatively large number of low-income escapers and low-income entrants from one year to the next which is more striking. Almost one third of our sample experienced low income at least once during the four-year period. Thus low-income churning is a significant phenomena in 1990s Britain.

* Abridged version of an article published in **Fiscal Studies** Vol 18 No 2, May 1997: 1–20, reprinted with permission. Full text available from the Institute of Fiscal Studies. Research financed by the Joseph Rowntree Foundation. The support of the Economic and Social Research Council and the University of Essex is also gratefully acknowledged. We thank our Centre colleagues and our JRF project Advisory Group for helpful discussions, and Gerry Redmond for the Council Tax imputations. The views expressed and conclusions drawn are those of the authors alone.

Contact Addresses: ESRC Research Centre on Micro-Social Change, University of Essex, Colchester CO4 3SQ. Email: sjarvis@essex.ac.uk, and stephenj@essex.ac.uk.

¹ Jarvis and Jenkins (1995), Taylor et al. (1994), and Webb (1995) examined income dynamics using only two waves of BHPS data. DSS (1996) – which appeared after the more detailed version of this paper (Jarvis and Jenkins, 1996) – also used four waves of BHPS income data, but with different definitions and analyses. Most other UK research has focused largely on specific income components rather than the more comprehensive measure of personal living standards, income itself. Earnings dynamics are analysed by, for example, Dickens (1996) and Ball and Marland (1996), and welfare benefit dynamics by, for example, Shaw et al. (1996).

Employment-related events such as getting a job are found to be associated with making transitions out of low income. For transitions into low income, job loss together with demographic events changing household composition are important. The group with low income at all four interviews mostly comprises single pensioners and families with children headed by a couple or lone parent not in work.

2 Data and Definitions

Our research is based on data from Waves 1 to 4 of the BHPS. The first wave was designed as a nationally representative sample of the population of Great Britain living in private households in 1991. The achieved sample comprises about 5,500 households, which corresponds to a response rate of about 65 per cent of effective sample size. At Wave 1, over 90 per cent of eligible adults, approximately 10,000 individuals, provided full interviews. Original sample respondents have been followed and re-interviewed at approximately one year intervals subsequently. The wave on wave response rate was about 88 per cent for Waves 1 to 2, and over 90 per cent thereafter.²

We work with the sub-sample of 7910 persons (adults and children) present in each of the four waves and who belong to complete respondent households. In order to account for differential non-response at Wave 1, and subsequent differential attrition, all statistics presented below are based on data weighted using the relevant BHPS Wave 4 longitudinal weights.

Our income measure, net income, is the sum across all household members of: cash income from all sources (income from employment and self-employment, investments and savings, private and occupational pensions, and other market income, plus cash social security and social assistance receipts), minus direct taxes (income tax, employee national insurance contributions, local taxes such as the community charge and the council tax), with

the result deflated using the relevant McClements equivalence scale rate in order to account for differences in household size and composition. In order to compare real incomes, all incomes have been converted to January 1995 prices. The unit of analysis is the person. The income receipt period is the month prior to the wave interview or most recent relevant period for each income component (except for employment earnings which refer to 'usual earnings').³ We have converted all sums to a consistent pounds per week basis.

We side-step the vexed issue of what the appropriate definition of 'low income' is, by using in parallel two definitions of the low-income cut-off:

- half Wave 1 mean income (a threshold which is fixed in real income terms), and
- the poorest quintile in each wave (a threshold which varies in real income terms).

The real income value of the first cut-off is some £127 per week for all four waves; the real income values of the second are £135, £139, £140, £144 for waves 1–4 respectively. Half mean Wave 1 income corresponds to the 18th percentile of the Wave 1 distribution, but only the 14th percentile by Wave 4.

There are empirical and conceptual advantages to using these two definitions in parallel. From a conceptual point of view, the dual usage strikes a balance between those who argue for a fixed real income cut-off, often on the grounds that the incidence of low income should necessarily decline as real income grows, and those who argue for a threshold which depends on the income distribution in question. From an empirical point of view, using the two thresholds allows sensitivity analysis of the conclusions drawn to variations in the generosity of the threshold: the quintile based cut-off is higher than the absolute threshold (by some 6 per cent at Wave 1, and about 13 per cent at Wave 4). The particular levels of the chosen thresholds are of

² For a detailed discussion of BHPS methodology, representativeness, and weighting and imputation procedures, see Taylor (1994) and Taylor (1996).

³ The derivation of the net income distributions requires much manipulation of the raw BHPS data. For detailed discussion of variable construction, and a demonstration

of the validity of the derived distributions relative to a range of relevant HBAI benchmarks for Waves 1 and 2, see Jarvis and Jenkins (1995). The council tax imputations are explained by Redmond (1996). Our derived variables have been deposited with the Data Archive at the University of Essex.

Table 1: Low income sequence patterns for two low-income cut-offs

	Income sequence	Low income cut-off = half Wave 1 mean		Low income cut-off = poorest sample quintile	
		Per cent	Cumulative per cent	Per cent	Cumulative per cent
1	LLL	4.3	4.3	7.0	7.0
2	LLH	1.8	6.0	1.9	8.9
3	LLHL	1.2	7.2	1.2	10.1
4	LLHH	2.2	9.4	2.2	12.2
5	LHLL	1.2	10.6	1.4	13.6
6	LHLH	1.2	11.8	1.0	14.6
7	LHHL	0.7	12.5	1.2	15.8
8	LHHH	5.5	17.9	4.2	20.0
9	HLLL	1.4	19.3	2.5	22.5
10	HLLH	1.5	20.8	1.5	24.0
11	HLHL	0.9	21.6	0.9	24.9
12	HLHH	2.6	24.3	2.9	27.8
13	HHLL	1.8	26.0	2.2	30.0
14	HHLH	2.2	28.3	2.6	32.6
15	HHHL	3.0	31.3	3.6	36.2
16	HHHH	68.7	100.0	63.9	100.0
All		100.0		100.0	
Base n		7910		7910	

Notes: The table summarises the income sequences (Wave 1 income)(Wave 2 income)(Wave 3 income)(Wave 4 income) with incomes recoded L if below the low-income cut-off, and H if equal to the cut-off or higher. Percentages calculated using BHPS longitudinal weights.

course somewhat arbitrary, as there is no clearcut evidence of a sharp increase in poverty or deprivation at these specific values. However half-the-average and quantile cut-offs do have the virtue of being commonly used in British empirical research on incomes.⁴

3 Low Income Dynamics

3.1 The extent of persistent poverty

Table 1 summarises the income sequence patterns for our longitudinal sample, where an income has been recoded as L (Low) if it is below the low-income cut-off for a year, and H otherwise. The left-hand side of the table shows the results for the case when the low-income cut-off is half of Wave 1 mean

⁴ Another reference point is social assistance benefit levels. These have remained fairly constant in real terms over this period and our half 1991 mean income cut-off is more generous than the entitlements for many people. For example, in October 1991 a childless married couple with no income of their own was eligible for income support of £62.25 per week, plus housing benefit covering housing costs. If housing costs were

£25 per week, total social assistance entitlement would be £89.45. In equivalent net income terms (converted using the McClements equivalence scale and reflated to January 1995 prices), this is a figure of about £94 per week. People with social assistance entitlements near to our half Wave 1 mean cut-off (£127 per week) would be those with above average housing costs.

income; the right-hand side shows the case when it is the poorest quintile. For both cases, the table shows the relative incidence of each of the relevant sequences, and the median income at each successive wave for each sequence pattern group.

The first row of Table 1 helps address the issue of how widespread the persistent poverty problem is. We find that 4.3 per cent of the sample had an income below half of Wave 1 mean income at all four interviews (those with LLLL, row 1). If instead the low-income cut-off is the poorest quintile, the proportion persistently poor rises to 7 per cent. Whether these figures indicate that the incidence of persistent poverty is relatively high or not is difficult to judge, and likely to depend on whether one believes the cut-offs are meaningful or not in terms of individual deprivation.

International comparisons provide a yardstick for judging whether our estimates of persistent poverty are large or small. Duncan et al. (1993) report estimates for six countries in Europe and North America of the percentage of families with children with incomes below 50 per cent of median size-adjusted income in all three years of a three-year period during the mid-1980s. For Germany, and the Lorraine region of France, the percentages were about 1.5 per cent, and for Luxembourg and the Netherlands 0.4 per cent. They were much higher in Canada (11.9 per cent), and the United States (14.4 per cent). We estimate that about 7 per cent of persons in couple or lone parent families with children at Wave 1 had an income below half the Wave 1 mean at three consecutive interviews. Since the half the mean is a more generous cut-off than half the median (£127 compared to £109 at Wave 1), the 7 per cent should be adjusted further downwards to be comparable with Duncan et al.'s estimates. But even if this adjustment halved the proportion, the British estimate of persistent poverty amongst families with children would be larger than the European ones cited above.

3.2 How many people experience low income over a period of time versus at a point in time?

Although, on either definition of the low-income cut-off, a minority of the population had low income at every wave, many more had low income

at one period or another. If we focus on the figures for the half Wave 1 mean cut-off, we find that 5.6 per cent had low income at three interviews, 8.1 per cent had low income at two interviews, and 13.1 per cent had low income at one interview in four. The statistics show that during the four-year period, 9.8 per cent of the sample had at least three low-income spells, 17.9 per cent of the sample had at least two low-income spells, and 31.3 per cent of the sample had at least one low-income spell during the four-year period. In other words, almost a third of the sample is touched by low income at least once over a four-year period.

We are struck by the extent of low-income turnover, another manifestation of the Jarvis and Jenkins (1996) finding that there is much year-to-year income mobility for all income groups, albeit mostly short-range. It should also be remembered that our figures underestimate the proportion touched by low income throughout the four-year period, since low-income spells, other than around the time of the panel interviews, are not examined here.

4 Low Income Exit and Re-Entry Rates

With four waves of the BHPS we can begin to look at how low-income exit rates vary with the length of time people have had a low income, and at how low-income re-entry rates vary with the length of time people have been out of low income. These rates can be used to predict the length of time that people will spend in low income during a single continuous low-income spell, and the number of times they experience low income over a given number of years. The exit and re-entry rates which are relevant in this context are the ones which refer to the experience of a cohort of persons starting a low-income spell (and thence eligible for exit thereafter) and to the experience of persons finishing a low-income spell (and thence at risk of re-entry thereafter). The exit rates are not in general the same as the exit rates from the stock of low-income persons at a particular time: the stock contains a mixture of recent entrants and long-term stayers. An analogous argument applies to the re-entry rates. Our analysis is constrained by the small number of waves of data currently available: we can only estimate two exit and two re-entry rates.

The low-income exit and re-entry rate estimates, for the two sets of low-income cut-offs, are displayed in Table 2. Also shown are the proportions of persons remaining on low income, or who re-enter low income, broken down by duration, corresponding to these estimates.

Using the half Wave 1 mean cut-off, we find that the exit rate from low income after one year in low income is 0.54. The exit rate, after two interviews reporting low income, falls slightly, to 0.51. The results imply that, for a cohort starting a low-income spell, just under one half (46 per cent) still have low income after one year, and about one fifth (22 per cent) still have low income after two years (i.e. after the third interview reporting low income). That is, almost four fifths of the low-income entry cohort no longer have low income after two years.

The low-income re-entry rate one year out of low income (i.e. at the second interview) is 0.29, but after two years (at the third interview), the re-entry rate more than halves, to 0.11. The rates imply that, for a cohort of persons starting a spell out of low income, 29 per cent will start another low-income spell after one year, and more than one third (36 per cent) will have fallen below the threshold again after two years. Thus just over one half of the cohort will have incomes above the cut-off for at least two years (three interviews).

When the low-income cut-off is the poorest quintile, we find different magnitudes but similar patterns. The main difference is that exit rates are slightly lower, and re-entry rates higher, which is not surprising since the real income levels characterising the low-income thresholds are slightly higher.

Our estimated probabilities of exit are higher, and probabilities of re-entry are lower, than those found by Shaw et al. (1996) in their study of income support (IS) receipt during 1991–92. Their life-table estimates show that the proportion of a cohort starting an IS spell still claiming after one year is about 60 per cent, and that about one half are still claiming two years after the spell start (1996, chapter 10). The proportion of former IS claimants who start another claim after one year of finishing the previous spell is estimated to be about 25 per cent. The results are consistent with our results for low income since IS entitlement levels are less generous than the thresholds we are using.

Our results can also be compared with estimates of US poverty exit and entry rates for 1971–81 made by Bane and Ellwood (1986) and 1970–87 by Huff Stevens (1994, 1995) using Panel Study of Income Dynamics (PSID) data. Bane and Ellwood's classic study reported that the probability of exit from poverty after one year was 0.45, and after two years

Table 2: Low income exit and re-entry rates, by duration

Duration (No. interviews)	Low income exit rate	Per cent of cohort still with low income	Low-income re-entry rate	Per cent of cohort re-entered low income
Low income cut-off = half Wave 1 mean income				
1	0.54	100	0.29	0
2	0.51	46	0.11	29
3		22		36
Low income cut-off = poorest quintile				
1	0.50	100	0.30	0
2	0.38	50	0.23	30
3		32		47

Notes: Exit rates derived using data for persons beginning a low-income spell (sequences HLxx and xHLx in Table 1). Re-entry rates derived using data for persons finishing a low income spell (sequences LHxx and xLHx in Table 1).

0.29 (1986, Table 6), and Huff Stevens reports almost identical figures, when eliminating some one-year poverty spells, to Bane's and Ellwood's. When these adjustments are not made, Huff Stevens's estimates the poverty exit rate after one year to be 0.53, and after two years 0.36. She also reports poverty re-entry rates of 0.27 after one year out of poverty, and 0.16 after two years out of poverty (1995, Table 1). We are struck by the fact – differences between the US and British welfare states, and the periods covered, aside – that our estimates are not far off those of Huff Stevens.

It is important to take the exit and re-entry probability results together. The exit rates, if looked at on their own, might suggest that the majority of people falling into low income will spend only a couple of years in this situation. However the path out of low income is not a one-way up-escalator: the re-entry estimates remind us that there is a not insignificant chance of being found on the down escalator to low income again within two years. This implies that low-income spell repetition is an important phenomenon in Britain, and needs to be taken into account alongside the issue of single long-term low-income spells.

5 Who are the Persistently Poor?

From a policy perspective it is important to be able to distinguish the causes of long- and short-term poverty in order to tailor anti-poverty policy measures accordingly. Is long-term low income systematically associated with having some particular set of characteristics, or are the persistently poor simply a random subset of those who are poor at a particular point in time? If the latter case obtains, then there is no particular reason to develop a policy programme specially directed at long-term poverty alleviation separate from the 'standard' anti-poverty measures for the point-in-time poor population (Duncan et al. 1984).

We begin to address these issues here by looking at the characteristics of low-income stayers, defined as those persons having low income at all four interviews. We compare breakdowns by sex, family type, and family economic status for this group with the corresponding breakdowns of all the people on low income at Wave 1. We shall discuss the results based on using half Wave 1 mean income as the

low-income cut-off, since the results for the other threshold definition are very similar (see Jarvis and Jenkins 1996, for details).

We find that, although many of the low-income stayers are the same types of people as those who comprise the Wave 1 low-income population, there are some marked differences in the breakdowns. The Wave 1 low-income population mostly comprises elderly persons, and non-working families with children (including lone-parent families). However, among the Wave 1 low-income stayer group, there are noticeably more people belonging to lone-parent families (26 per cent compared to 17 per cent), and to couple families with children in which neither the head or spouse is working (25 per cent compared to 13 per cent). As a result, there are more dependent children amongst the low-income stayers than amongst the Wave 1 low-income group as a whole (35 per cent compared to 28 per cent). There are also more single pensioners (24 per cent compared to 21 per cent).

There are both similarities and differences between our findings and those of Duncan et al. (1984) based on US PSID data for 1969–1978. The results are similar because we also find that the persistently poor differ from the short-term poor. However the differences we find are not as marked as theirs, though this may simply reflect the different definitions and observation period (for example they define persistently poor as being poor 8 or more years out of 10, and discuss the 1970s rather than the 1990s). Like us, Duncan et al. (1984) find an over-representation of families headed by a woman.

6 Who Moves Out of Low Income? Who Moves In?

We now turn from considering the characteristics of the low-income stayers to seek to identify those who escape from low income and those who enter it. We examine the characteristics and events associated with making a transition out of low income or making a transition into low income. The events considered are changes in family type, number of adults and number of children in the household, family economic status, and number of earners in the household. Results are broadly the same whichever low-income cut-off definition is used, and so we refer below to results for the low-income

cut-off of half Wave 1 average income (see Jarvis and Jenkins 1996, for the full set of results).

By definition, low-income escapers are drawn from amongst the low income population, and entrants from amongst the non-poor, and so it is of interest to know how the characteristics of the mover and at-risk groups match up – are the movers a random selection of those at risk? The data reveal that escapers are predominantly elderly people or belong to non-working families with children, i.e. precisely the same groups most commonly found amongst the low-income group as a whole. The entrants group, too, is mainly comprised of elderly people (about a fifth is from pensioner families) or people from families with children (about one third are couple families, about one sixth lone-parent families).

However some interesting differences stand out. Amongst the escapers there is a higher proportion of childless couples (and adults aged 40–54 years at Wave 1) and childless single adults (and adults aged less than 30 years). We have checked whether these two groups were disproportionately located close to the low-income cut-off in the first place, and this does not appear to be the case, suggesting the result arises not simply because childless people require smaller income changes to escape low income.⁵ As far as entrants are concerned, there are disproportionately more unemployed or part-time couple and lone-parent families (and hence dependent children), and single pensioners. In part, this is because these groups are more likely to have

incomes relatively close to the income cut-off, and have less far to ‘fall’ – this comment applies particularly to single pensioners and unemployed and part-time couple families.⁶

We now investigate the association between *changes* in people’s household context and changes in income, comparing the incidence of events amongst low-income escapers and entrants with those of the sample as a whole (see Table 3).

We find that family economic status changed for about one third of escapers and for more than 40 per cent of entrants, which is much higher than the incidence amongst the sample as a whole, about one quarter. The incidence of pure family type changes is less than the incidence of family economic status changes for all groups, but this is to be expected since changes in one’s family economic status can come about via family type changes.⁷ Looking at family type changes, there is above average incidence for entrants (14 per cent) but, interestingly, not for escapers (about one tenth). There is a similar pattern in the relative incidence of joint changes in family economic status and family type. These were experienced by 6 per cent or fewer of the total sample, and by low income escapers, but by about one tenth of the entrants.⁸

The lower panels of Table 3, focusing on changes in the numbers of earners, adults, and children in a person’s household, provide greater detail and reveal some clear patterns. Looking at the changes

⁵ We compared the composition of the group on incomes between the cut-off and 10 per cent less, with the group on lower incomes. If any group amongst the escapers is notably disproportionately close to the cut-off, it is the elderly.

⁶ We compared the composition of the group on incomes between the cut-off and 10 per cent above it, with the group on higher incomes.

⁷ We should stress that our economic status variable refers to an individual’s family context. Changes in this may occur even if the individual in question has not changed his or her own work pattern. They may also arise via changes in work status for other family members, or by a change in family composition. (An example would be a married couple family at wave *t* with the husband working full-time and the wife part-time. If the woman is a lone parent at wave *t*+1 but still working part-time, her family economic status, according to our definition, will have changed.) The

emphasis on family (or household) context is entirely appropriate because we are interested in household income.

⁸ The decline in the incidence of economic status and family type changes between wave 1–2 and waves 3–4 may arise for several reasons. One is that it may reflect a sample selection bias: we are working with a longitudinal sample from complete respondent households, and one might expect that economic and demographic change – especially the latter (e.g. divorce and separation) – is more common amongst households with incomplete responses, and that this effect will cumulate over time. That part of the impact of complete non-response (i.e. panel attrition) which is not fully accounted for by the longitudinal sample weights which we use, would have a similar effect. The trend might also be genuine: there was a general recovery among the British after 1991, and with this may have come greater stability in family context.

Table 3: Percentages experiencing economic and demographic events: low-income escapers and entrants compared to whole sample

(low-income cut-off = half Wave 1 mean income)

Column percentages	Total sample			Low-income escapers	Low-income entrants
	W1-W2	W2-W3	W3-W4		
Family economic status changed	26	23	23	32	43
Family type changed	11	7	8	11	14
Both economic status and type changed	6	4	2	6	10
No. earners decreased*	13	13	12	15	30
No. earners same	75	76	77	67	56
No. earners increased	12	11	11	18	14
No. adults decreased*	7	7	5	6	14
No. adults same	82	88	87	85	79
No. adults increased	11	5	8	9	7
No. children decreased*	10	3	6	4	8
No. children same	86	93	90	91	85
No. children increased	4	4	5	4	6

*Notes: Unit is the household. Low income escapers and entrants defined as in Table 2.

in the number of earners first, we find that increases in the number of earners in the household are associated with transitions out of low income, whereas decreases in the number are associated with transitions into low income. The number of earners increased for 18 per cent of escapers compared with 11 to 12 per cent of the sample as a whole. For entrants the contrast with the sample as a whole is even more distinct: the proportion with a decrease in the number of earners is more than twice the average sample incidence, 30 per cent compared to 12 to 13 per cent.

There are also some interesting associations between household composition change and low-income status change. Escapers appear to experience about average, or slightly above average, demographic stability: the fraction of the group with the same number of adults is much the same as for the total sample, and the fraction with the same number of dependent children is a little larger than for the total sample, and there are slightly lower fractions experiencing either increases or

decreases in numbers. There is a more distinctive picture for entrants. In particular the number of adults in the household decreased for 14 per cent of this group, twice the fraction for the total sample. Entrants also experienced (slightly) above average changes in the numbers of children in the household.

In sum, escapers appear to have above average incidence of increases in the numbers of earners, combined with roughly average changes in the number of adults and number of children. Increases in the numbers of earners may arise through either an existing household member getting a job, or the arrival of a new partner who also works, or both. Since the incidence of household composition change is about average for this group, this suggests that getting a job plays a particularly important role in taking people out of low income. Stability in household composition may also have a benign influence. This story fits best for the escapers who are in non-working families with children. For others such as pensioners, it is less relevant. For this subgroup it may simply be that transitory income

fluctuations are much more important. These may be due to measurement errors rather than genuine transitory fluctuations (expected to be less important given the nature of most pensioners' income packages).

Our results about the correlates of transitions out of and into low income are not directly comparable with those of Bane and Ellwood (1986) for the USA and those of Duncan et al.'s (1993) cross-national study, because we have not used such a detailed (and mutually exclusive) list of named economic and demographic events as they did.⁹ However Duncan et al. conclude that employment related events were the most important events associated with transitions both into and out of poverty for their samples of families of children, and this finding is consistent with the ones we report above for this group. Both Duncan et al. and Bane and Ellwood also draw attention to the impact of demographic events (for example marriage/remarriage and divorce/separation), and report that such events were more significant for entries to poverty than exits. Our analysis shows similar results.

7 Concluding Comments

The results have implications for both welfare benefit and labour market policies. The large amount of low-income turnover means that the welfare benefit system has an important role providing short-term support: over a year many more people are helped by the benefit system than would be revealed by focusing on the benefit caseload at a specific point in time (which disproportionately comprises long-term stayers). Longer term help from the benefit system is also important of course, particularly for poor people beyond retirement age. Single pensioners form about one quarter of the persistently poor group but they have limited opportunities to improve their incomes through paid work, or marrying someone with sufficient income. These opportunities, especially the former, are of course more relevant to those of working age. However, although we have shown that getting a job is associated with escaping low income, it should be remembered that we examined associations with short-term income changes. If the job gained were of only short duration, then the low-income escape is also likely to be only temporary (as the turnover and spell repetition results remind us). Policies for permanent escapes need to increase the tenure and quality of labour market attachment.

⁹ This is the subject of current work. However for some more detailed breakdowns by pre-transition family type and economic status, see Jarvis and Jenkins (1996).

Jarvis and Jenkins (1997) provide detailed evidence about the income changes associated with marital splits.

References

- Ball, J., and Marland, M., 1996, 'Male earnings mobility in the Lifetime Labour Market Database', **Analytical Services Division Working Paper** No 1, London: Department of Social Security
- Bane, M. J., and Ellwood, D.T., 1986, 'Slipping into and out of poverty: the dynamics of spells', **Journal of Human Resources** No 21: 1–23.
- Buck, N., Gershuny, J., Rose, D., and Scott, J. (eds), 1994, **Changing Households: The British Household Panel Survey 1990–1992**, Colchester: ESRC Research Centre on Micro-Social Change, University of Essex
- Department of Social Security, 1995, **Households Below Average Income 1979–1992/93**, London: HMSO
- Department of Social Security, 1996, **Households Below Average Income 1979–1993/94**, London: HMSO
- Dickens, R. 1996, 'The evolution of male earnings in Great Britain: 1975–94', **Centre for Economic Performance Discussion Paper** No 306, London: London School of Economics
- Duncan, G.J., Coe, R.D., and Hill, M., 1984, 'The dynamics of poverty', Chapter 4 in G.J. Duncan, **Years of Poverty, Years of Plenty**, Ann Arbor MI: University of Michigan Institute for Social Research
- Duncan, G.J. et al., (1993), 'Poverty dynamics in eight countries', **Journal of Population Economics** 6: 295–234
- Huff Stevens, A., 1994, 'Persistence in poverty and welfare: the dynamics of poverty spells: updating Bane and Ellwood' **American Economic Review, Papers and Proceedings** 84: 34–37
- Huff Stevens, A., 1995, 'Climbing out of poverty, falling back in: measuring the persistence of poverty over multiple spells', **NBER Working Paper** No 5390, Cambridge MA: National Bureau of Economic Research
- Jarvis, S. and Jenkins, S.P., 1995, 'Do the poor stay poor? new evidence about income dynamics from the British Household Panel Survey' **Occasional Paper** No 95–2, Colchester: ESRC Research Centre on Micro-Social Change, University of Essex
- , 1996, 'Changing places: income mobility and poverty dynamics in Britain', **Working Papers** Nos 96–19, Colchester: ESRC Research Centre on Micro-Social Change, University of Essex
- , 1997, 'Marital splits and income changes: evidence from Britain', **Working Papers** Nos 97–4, Colchester: ESRC Research Centre on Micro-Social Change, University of Essex
- Redmond, G., 1996, 'Imputing council tax bands for households in the British Household Panel Study', unpublished paper, Microsimulation Unit, University of Cambridge
- Shaw, A., Walker, R., Ashworth, K., Jenkins, S., and Middleton, S., 1995, 'Moving off income support: barriers and bridges', **Department of Social Security Research Report** No 53, London: HMSO
- Taylor, A., 1994, 'Appendix: sample characteristics, attrition and weighting' in Buck et al., 1994
- Taylor, M. P., Keen, M., Buck, N., and Corti, L., 1994, 'Income, welfare and consumption', Chapter 4 in Buck et al., 1994
- Taylor, M. F. (ed), 1996, **British Household Panel Survey User Manual: Introduction, Technical Reports and Appendices**, Colchester: ESRC Research Centre on Micro-Social Change, University of Essex
- Webb, S., 1995, 'Poverty dynamics in Great Britain: preliminary analysis from the British Household Panel Survey', **IFS Commentary** No 48, London: Institute for Fiscal Studies