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# The Dynamics of Child Poverty: Britain and Germany Compared

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# Discussion Paper No. 233

# The Dynamics of Child Poverty: **Britain and Germany Compared**

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# The dynamics of child poverty: Britain and Germany compared

by

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The dynamics of child poverty: Britain and Germany compared

#### **ABSTRACT**

We compare patterns of movements into and out of poverty by children in Britain and Germany using data from the British Household Panel Survey and the German Socio-Economic Panel for the period 1992-7. Compared to Germany, in Britain poverty persistence is greater, and poverty exit rates in particular are lower. In both countries poverty is particularly persistent among children in lone parent households and households with a non-working head. Events such as family formation and dissolution, and changes in household labour market attachment are associated with child poverty transitions in the direction expected, and in both countries. However a large fraction of the observed poverty transitions are not accounted for by these events.

#### ZUSAMMENFASSUNG

Wir vergleichen die Muster der Armutsdynamik bei Kindern in Großbritannien und Deutschland anhand der Daten der British Household Panel Survey und des Sozio-ökonomischen Panels für den Zeitraum 1992-1997. Im Vergleich zu Deutschland ist in Großbritannien die Verweildauer in Armut länger und die Armutsausstiegsraten sind wesentlich niedriger. In beiden Ländern bleiben vor allem Kinder in Alleinerziehenden-Haushalten und Haushalten mit nicht-erwerbstätigem Haushaltsvorstand dauerhaft arm. Ereignisse wie Familiengründung und Trennung sowie Veränderungen im Erwerbsverhalten erhöhen in beiden Ländern das Armutsrisiko von Kindern. Aber auch diese Ereignisse können einen großen Anteil der beobachteten Übergänge in Armut nicht erklären.

#### 1. INTRODUCTION

In Britain throughout the 1980s and 1990s, the poverty rate among children in each year was higher than the poverty rate for the population as a whole. In Germany the same differential existed but was smaller. From this cross-sectional perspective, Germany appears to do better for its children than Britain does. Can this conclusion be sustained once we take account of differences in poverty dynamics between the countries? To what extent are there differences in patterns of movement into and out of poverty by children? This paper provides answers to these questions using data from the British Household Panel Survey and the German Socio-Economic Panel for the period 1992-7.

The longitudinal and cross-national comparative perspectives on child poverty are our distinctive contributions. Most research to date for Britain and Germany has taken a cross-sectional perspective. Exceptions include Jarvis and Jenkins (1997) and Krause (1998) but neither focussed on children. Hill and Jenkins (forthcoming) and Schluter (forthcoming) studied different aspects of child poverty dynamics for each of the two countries separately. Some explicitly cross-national perspectives on child poverty dynamics for Britain and Germany are provided by Bradbury *et al.* (forthcoming), but in less depth than here (they consider a larger number of countries instead).<sup>1</sup>

We find that a considerable number of children moved in and out of poverty between one year and the next in both Britain and Germany, but turnover was lower in Britain. Compared to Germany, child poverty persistence was greater in Britain and poverty exit rates in particular were lower. In both countries poverty was particularly persistent among children in lone parent households. Events such as family formation and dissolution, and changes in household labour market attachments were associated with child poverty transitions in the direction expected. However a large fraction of the observed poverty transitions are not accounted for by these events. A significant proportion of poverty transitions appear to be associated with large changes in labour earnings that did not involve a job change.

<sup>&</sup>lt;sup>1</sup> See also Duncan *et al.* (1993) for a cross-national analysis of poverty dynamics. However they consider poverty transitions for families with children (rather than focussing on children) and Britain is not included among the countries considered.

#### 2. DATA AND DEFINITIONS

#### **Data**

We use data covering 1992 to 1997 from the British Household Panel Survey (BHPS) and the German Socio-Economic Panel (GSOEP). The BHPS's first wave was a nationally representative sample of the population of Great Britain living in private households in 1991. The achieved wave 1 sample comprises about 5500 households, with information for nearly 14000 adults and children. Original sample respondents (including both partners from a dissolved wave-1 partnership) have been followed and they, and their co-residents, interviewed at approximately one year intervals subsequently. Children in original sample households are also interviewed when they reach the age of 16 years. Thus the sample remains broadly representative of the population of Britain. Each BHPS wave provides information about some 3300-3400 children (about one quarter of the sample).

The design of GSOEP, launched in 1984, is governed by rules which were copied – more or less – by the BHPS. The first wave of the GSOEP covered 12245 persons in about 6000 households. The data are representative of the German population at that time and include an over-sample of 'guest workers' (foreign-born residents and their children) recruited abroad during the economic booms of the 1960s. In 1990 the panel was extended to East Germany. The number of children present in the West German 1984 GSOEP wave is 2302 native children and 1637 children in guest worker households. The East German wave 1992 contains 1358 children.

In order to be able to compare Britain with the united Germany, our focus is restricted by data availability to the period 1992 to 1997. The income data for Germany are those provided by the PSID-GSOEP Equivalent Datafile, a derived variable supplement to the standard GSOEP (Burkhauser *et al.* 1999). The corresponding BHPS income variables are those provided by Bardasi *et al.* (1999).

Children are defined to be persons aged less than 17 years. For our cross-sectional analyses of poverty in each year, we use the data for all persons with available income data. For our longitudinal analyses, we restrict attention to individuals who were children

throughout the relevant observation period (see later for details).<sup>2</sup> Because the number of children in some household types is relatively small, our analysis of poverty transitions is based on data pooled across survey waves.

#### **Definitions**

The unit of analysis is the individual, and the child in particular. Each person's economic well-being is defined as the needs-adjusted post-tax post-transfer annual income of the household to which he or she belongs ('income' for short) – the conventional definition. The needs adjustment refers to the deflation of household money income by an equivalence scale to take account of the fact that DM5000 per month is worth a lot more to single person living alone than to a family of four. For this paper, we use the so-called 'square root' equivalence scale, according to which each household income is divided by the square root of the household's size. This scale is commonly used in cross-national research (see e.g. Atkinson *et al.* 1995). Incomes were deflated to a common year using the relevant national price index.

The poverty line is 60 percent of the contemporary national median income, a threshold recommended by a recent Eurostat Task Force (1998) for Eurostat's cross-national poverty comparisons. For Britain, this corresponds to a 1992 poverty line of £5500 per annum (in 1997 prices), and a cut-off some 7% higher in 1997, £5875. The 1992 poverty line for Germany is DM 18528 (in 1997 prices) and 4% higher in 1997, DM 19325. (During the 1990s, £1 was worth about DM3.) For both countries the overall shape of the income distribution in each year changed little over the 1990s.

#### 3. TRENDS IN POVERTY RATES: A CROSS-SECTIONAL PERSPECTIVE

Before comparing the dynamics of child poverty in Britain and Germany, we provide some contextual information based on a cross-sectional point perspective. Table 1 shows poverty rates for the two countries over the period 1992-7. The left hand side of the table shows the

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<sup>&</sup>lt;sup>2</sup> This has the advantage of being a transparent and consistent rule. However it may lead to under-representation of the experience of older children (those turning 17 in the observation period) in some of the analyses based on relatively long observation periods.

poverty rates each year among children; the right hand side shows the corresponding poverty rates for the population as a whole.

Poverty rates were higher in Britain than Germany throughout the period. For example the proportion of British children who had an income below 60% of median income was about 29%, whereas in Germany the corresponding figure was almost half that, 16%. Over the six year period, poverty rates fluctuated more in Germany than Britain, but there were no obvious trends in either case.

For both countries the poverty rate among children was greater than the poverty rate for the population as a whole, though the differential was larger in Britain than in Germany. For example in Britain the average child poverty rate was almost one third higher than the average all-persons poverty rate, whereas in Germany the child poverty rate was less than one quarter higher.<sup>3</sup>

Are the higher child poverty rates in Britain simply a consequence of using a single specific poverty line? Figure 1 shows that the answer is a resounding negative. For each country, the graph shows the cumulative distribution function for the incomes of children in 1992, where incomes have been expressed relative to the national median income. For every poverty line which is defined as some fraction of national median income (a fixed point on the horizontal axis), one can read off from the curve the proportion of children with incomes below this cut-off. The graph shows that child poverty rates are higher in Britain than Germany for all poverty lines up to just over national median income. A similar picture is apparent for all the other years as well.<sup>4</sup>

#### Which groups of children are most at risk of poverty, and how large are they?

To account for the cross-national differences in child poverty it is natural to ask which groups are at a particular risk of being poor and whether they are same in the two countries, and whether their importance – summarised by size of the group – also differs. These groups are

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<sup>&</sup>lt;sup>3</sup> The picture for Germany as a whole disguises some large differences between the regions comprising the former East and West Germany. Child poverty rates were much higher in the East than the West, to a large extent a reflection of our use of a poverty line based on median income for the nation as a whole, though the East-West differential has decreased over time. The question of whether child poverty dynamics also differ in the East compared to the West is an issue we do not address here at all, for reasons of space, deferring such analysis to another time.

<sup>&</sup>lt;sup>4</sup> The graph is based on a kernel density estimate of the function rather than the empirical distribution function. Hence the poverty rates based on a 60% of median income poverty line are lower than those shown in Table 1 for 1992.

also likely to be important for isolating different patterns of poverty dynamics, though such classifications have their limits in this context. The reason is that the characteristics used to define subgroup membership at a point in time can change over time. Indeed it may be this change that is responsible for the income change. We look later at the association between poverty transitions and various changes in characteristics ('events').

Table 2 shows poverty rates and population shares for a number of subgroups of children (they are not mutually exclusive). The table highlights a difference between groups with above-average poverty rates and those with below-average rates. The principal example of the former type is children belonging to a lone parent household (i.e. households containing one adult plus children). For Britain, child poverty rates in each year were more than double the all-children rate (around 29% for Britain) but in Germany the differential was substantially higher, almost four times higher than the all-children rate (about 16%). On the other hand in Britain about twice as many children live in lone parent households as in Germany: about one fifth rather than one tenth. Thus lone parenthood is important for child poverty in both countries, but for different reasons. There were also above average poverty rates for children in households in which the head was not working. In Britain their poverty rate was almost as high as the rate for children in lone parent households (over 60%); in Germany, the rate is somewhat lower (about 45%). Moreover the size of the group with nonworking household heads is almost twice the size of its German counterpart, comprising about one third of all children (compared with less than one fifth in Germany).

Children living in households with a young household head – defined to be one aged less than 31 years – also have relatively high poverty rates. In both countries the rates are about twice the all-children rate. Population shares are much the same too. Young children – those aged under 8 years old – comprise about one half of all children in both Britain and Germany, and have slighter higher poverty rates than all children in both countries.

Prime examples of children with lower than average poverty rates are those living in households in which the household head was working full-time. Poverty rates in Britain and Germany were much the same – about one in ten. Given the higher all-children poverty rate in Britain, this means that work attachment has a relatively greater impact in Britain than in Germany (but even full-time work is clearly not a perfect poverty cure). On the other hand, in Britain fewer children lived in households with a head working full-time – below 60% – whereas the proportion was over 60% in Germany. A similar story can be told for children in households with at least one full-time secondary earner. (We define a secondary earner to be a

worker who is not the household head; the head need not be working.) This is particularly true for Britain, where these children had a poverty rate less than half the all-children rate, and they comprised at least one third of all children. In Germany the subgroup poverty rate was about the same as in Britain, about one tenth, but larger relative to the all-children rate (16%) and, moreover, the group is smaller in relative size (about 27% of all children).

#### 4. CHILD POVERTY DYNAMICS COMPARED

Poverty has many dimensions when one takes a dynamic perspective. One may look at entry and exit rates and at how long each single poverty spell lasts. The total poverty experienced over a period also depends on how many spells of poverty each child has. We therefore use a number of different types of calculation to capture these different dimensions.

#### Number of times poor over a four year period

Table 3 summarises poverty persistence using estimates of the number of times each child was poor over a four year period. We derived estimates for each of the intervals 1992-5, 1993-6, 1994-7, and the numbers shown in the table are the averages of these. The first striking finding is that, in both Britain and Germany, children were more likely to be persistently poor than the population as a whole: contrast the all-persons and all-children estimates. However, second, patterns for children do differ between the countries. Whereas about one half (49%) of British children experienced at least one year in four of poverty during 1992-7, the corresponding statistic for Germany was only about one third (34%). Thus compared to British children, not only were fewer German children poor at a point in time, but also fewer were touched by poverty over a period of time.

Poverty persistence differs markedly within the groups of children we highlighted earlier. In particular children in a lone parent household were particularly prone to experiencing some poverty over a four year period. Fewer than one sixth (17%) of British children in this group were never poor and almost of German children (31%). The chances of being stuck in poverty for every year of a four year period are noticeably high in Britain.

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<sup>&</sup>lt;sup>5</sup> A similar indicator is to be used by the British government to monitor poverty persistence among children (and other groups): see United Kingdom (1999).

Some 12% of British children in lone parent households were poor four years out of four, compared to 7% of German children. Recall too that the incidence of lone parenthood is higher in Britain than Germany. A very similar story can be told for children in households in which the head was not working. Again there is a relatively high chance of being poor at least once, especially in Britain (84%) compared to Germany (54%). Put another way, a striking 46% of German children with a non-working household head were never poor in four years, compared with only 17% in Britain. Children in households with a young household head also experienced high poverty persistence compared to all children. In this group some 24% of British children were never poor and 45% of German children.

Having a household head in full-time work or at least one full-time secondary earner in the household – the two factors may overlap – increased the chances that a child in either country was never poor over a four year period, but did not remove the poverty risk entirely. Almost one third of British children and one quarter of German children in these groups experienced at least one year of poverty.

#### Poverty entry and exit rates

We now focus on poverty turnover between one year and the next. Table 4 reports the annual rates of entry into and exit out from poverty over the period 1992-7. It is these transition rates – together with the numbers of children who are already poor – which determine whether the cross-sectional poverty rate (also shown) increases or decreases from one year to the next. It is apparent that the transition rates have fluctuated over time in both countries, but no clear trend is determinable (except perhaps that child poverty exit rates decreased slightly in Germany). Regardless of this issue, there are obvious differences in the results for Britain and Germany. British children face markedly lower exit rates from poverty than their German counterparts (26% compared to 36%), whereas entry rates to poverty are much the same (9% compared to 8%). The greater poverty turnover among German children is of course entirely consistent with the evidence reported earlier of lower numbers of times poor over a four year interval.

Are the cross-national differentials in transition rates also apparent when looking at key subgroups of the population? Table 5, which shows averaged transition rates, confirms that for each subgroup shown poverty turnover was higher in Germany than in Britain. Again it is the cross-national differential in exit rates that was larger than the one in entry rates. That

said, there are some large differences between subgroup transition rates and all-children transition rates for each country taken separately, and these patterns are similar across the two countries. For example in both Britain and Germany children in lone parent households had average poverty entry rates well above the national average and poverty exit rates well below the national average. The same pattern is apparent, though not as stark, for children from households with a young household head. In contrast turnover was markedly higher than average – entry rates lower and exit rates higher – for children in households with a head working full-time or with at least one full-time secondary earner. Turnover among younger and older children deviated little from the overall national averages.

The variation of entry and exit rates with spell duration, the length of poverty spells and the time between spells

The exit rates shown in Tables 4 and 5 do not reveal how the chances of leaving child poverty vary with how long a child has been poor. Nor do the entry rates reveal how chances of reentering poverty vary with the length of time spent out of poverty. With information about the duration dependence of the transition rates, one can derive estimates of the length of time spent poor for a child beginning a poverty spell, and of the length of time between poverty spells for those have already had one. Table 6 provides Kaplan-Meier estimates of poverty exit rates broken down by spell length, together with the associated estimates of the percentage of persons still poor one year after starting a poverty spell, two years after, and so on.

We find that exit rates at each poverty spell duration are higher in Germany than in Britain for all children combined.<sup>6</sup> This is also so for each subgroup, with the exception of children in a lone parent household at the start of the spell. Thus the country relativities in annual exit rates are largely mimicked by the duration-specific exit rates, as one would expect.

Among all children beginning a poverty spell, the median duration is 3 years in Britain and just under 2 years in Germany. Put another way, 49% of British children beginning a poverty spell were still poor after four years compared with 34% of German children. (In

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<sup>&</sup>lt;sup>6</sup> The results for Germany suggest that exit rates rose in the fourth year. It is not clear why this should be. It may reflect an improvement in the economy over the 1992-7 period and, given the short observation window, there is likely to be a correlation between the duration dependence of the exit rate and calendar time.

Britain 51% of children had left poverty after four years compared with 66% in Germany.) Duration-specific exit rates and percentages remaining poor for children aged less than 8 years throughout the spell were similar to those for all children, in both Britain and Germany. By contrast children in lone parent households at the start of the spell had lower than average exit rates in both countries and, as a corollary, spell lengths were longer than average. In Britain 63% of children in this group were still poor after 4 years and the corresponding figure for Germany was 66%. (This is the only statistic that is 'better' for Britain than Germany.) Children with a young household head had longer poverty spells than all children combined, especially so in Britain.

The patterns were quite different for children in a household with at least one full-time secondary earner at the start of the spell. In both Britain and Germany exit rates were higher than for all children combined, and spell lengths smaller. For example after three years only 38% of British children in this group remained poor and 37% of German children. It is perhaps surprising that exit rates varied little with the work status of the household head. Whether the head worked part-time or full-time or not at all, the exit rates were similar (and above the all-children rates in each case).

We can look at poverty entries too, though the focus is necessarily on re-entries, because it is only for children observed to finish a poverty spell during the period 1992-7 that we know when they were at risk of starting a(nother) poverty spell. Hence the spell duration variable here refers to the length of time spent not poor since the end of a poverty spell. Table 7 summarises the results. We find that poverty re-entry rates were generally lower, and recurrence times longer, for German children compared to British children, whether considering all children or the various subgroups. For example four years after finishing a poverty spell, about one half of German children remained non-poor but only about one third of British children. Put another way, the median recurrence times were about four years for German children and between two and three years for British children.

The experience of children in lone parent households stands out because recurrence times are much more similar between countries than the quite different all-children averages. Children in households with a young household head are an interesting group because in Germany their poverty re-entry rates are much the same as for all children, but in Britain their rates are distinctly above the overall average. Recurrence times are also relatively short for British children with non-working household heads (the median is about a year), and provide

a striking contrast with the corresponding German group for whom recurrence times are not so much below average (the median is two years).

#### 5. THE CORRELATES OF TRANSITIONS INTO AND OUT OF CHILD POVERTY

Having documented the different patterns of movement into and out of child poverty in the two countries, we now examine the relationship between poverty transitions and a selection of important demographic and labour market changes ('events'). Determination of the most important correlates of poverty transitions is an important first step along the route to understanding why poverty rates differ.

### Poverty entries

We begin with analysis of poverty entries. First we consider the chances of entering poverty between one year and the next for all the children who experienced a specified event over the same period. This can be interpreted as the 'risk' of poverty entry associated with each event. Second we consider the complementary question: of all the children who entered poverty between one year and the next, how many of them experienced a specified event? This tells us the 'share' of poverty entries accounted for by that event. Since the events are not mutually exclusive – in principle a child could experience more than one event – the poverty share statistics need not sum to one.

The events and their associated poverty entry risks are shown in the upper part of Table 8. It is clear that there were high risks of poverty entry for British and German children associated with a movement into a lone parent household (of which the dissolution of his or her parents' partnership is the main reason), and with the loss of labour market income. Interestingly the risks associated with each event are larger for Germany. For instance, of those children whose household became a lone parent household, 42% moved into poverty in Britain but more than half in Germany (51%). Among children whose household head moved

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<sup>&</sup>lt;sup>7</sup> Strictly speaking the intervals for event occurrence and income transitions do not match exactly. The characteristics used to define events are measured at the time of the annual interview. In the BHPS the modal interview month is October; in the GSOEP interviews typically occur in April. The reference period for annual incomes refers, in the BHPS, to the 12 months up to 1 September prior to the current interview. In the GSOEP the annual income reference period is the calendar year prior to the year of interview.

from full-time work to no work, 42% of German children became poor compared with 26% in Britain. Reflecting their smaller contribution to household income, the loss of part-time work by the household head and in the number of secondary earners had a smaller impact on poverty entry risks.

The shares of poverty entries accounted for by the same events are shown in the upper part of Table 9. The most striking result is that the percentage of entries accounted for by each event is relatively low. Even movement into a lone parent household accounted for just one fifth of poverty entries in Britain, and slightly less in Germany (17%). Put more explicitly, we find that more than half of all entries into poverty by British and German children were not associated with any of the events listed (51% in Britain, 59% in Germany).

This might suggest that the reasons for children entering poverty are quite diverse, and that no single factor dominates. More plausibly, however, our list of events may not include all the relevant ones. One of the most important of these is likely to be a fall in labour earnings that was not associated with job loss, for example because of a reduction in work hours. Underlining this relevance of this, we find that most of the children entering poverty had a household that was working part-time or full-time in the year prior to the poverty transition (the 'base year'). Alternatively, poverty entries may arise from small falls in income that are not associated with any specific event. One way of controlling for such transitory variation (or measurement error) is to focus on poverty entries associated with income falls greater than some minimum amount. Indeed we find that 70% of all poverty entries in Britain and 63% of all poverty entries in Germany were associated with a fall in gross labour earnings of greater than 20%. If we focus attention on the poverty entries associated with the same decline in labour earnings, but further restrict attention to only those with no associated job changes, the share of entries falls to 42% for both Britain and Germany, which is still a sizeable fraction.

#### Poverty exits

We now report an analogous exercise for poverty exits. Table 10 shows the risks of poverty exit associated with each of a set of specified events, i.e. the chances of leaving poverty between one year and the next for all the children who experienced a specified event over the same period. The events examined are direct counterparts to those considered in the analysis of poverty entries. The most striking feature of the results is that poverty exit risks are

remarkably low (for both countries), whichever event we consider. The largest exit rates in Britain and Germany are associated with a child's household head ceasing to be a lone parent and increases in the household head's attachment to the labour market. This suggests that the poverty exit results mirror the poverty entry risk ones. Interestingly, however, the size of the impact of labour market events was rather smaller in the poverty exits case, especially the transition between no work and full-time work. The exit risks for the move into full-time work are 16% for Britain and 26% for Germany, which may be contrasted with the entry risks for the move from full-time work which were 26% and 42% respectively (cf. Table 8).

The share of poverty exits accounted for by the same events are shown in the upper part of Table 11. The results here echo those for poverty entries. For both countries more than half the exits from poverty from one year to the next cannot be associated with any one of the events listed. This is particularly so in Germany where, of the children who left poverty, the proportion that experienced none of the events listed is just over two-thirds, compared to just over one half in Britain.

The explanations for this result are likely to be analogous to those discussed for poverty entries. A potentially important event not considered is an increase in labour earnings due to some household member working longer hours or getting a pay rise (but with no job changes). Some evidence consistent with this hypothesis is shown in the last three rows of Table 11. We find that a large number of those leaving poverty were children who were in 'working poor' households in the base year. For example 37% of poverty exits by British children and 39% of exits by German children can be associated with those who lived in poor households in which the head worked full-time. The share of children from the working poor among those leaving poverty is even larger if one widens the definition to refer the head working either part-time or full-time in the base year. The share of exits in this case was 53% for Britain and a very high 70% for Germany. The role played by increased earnings is highlighted in the last two rows of Table 11. About 70% of poverty exits in both Britain and Germany were associated with a rise in gross labour earnings of more than 20%. If we focus attention on entries with the same gross earnings rise and no associated job change, then the figures fall to 56% and 62% respectively, which are still relatively large.

#### 6. SUMMARY AND CONCLUSIONS

The task we set ourselves was to identify the similarities and differences between Britain and Germany in patterns of movement into and out of poverty by children. Our analysis points to several conclusions.

Compared to German children, British children experience a higher degree of persistent poverty (more years poor over a four year interval), and lower poverty turnover (annual exit rates from poverty are lower and annual entry rates to poverty are about the same). British children experience longer poverty spells than German children and recurrence times are shorter. It appears that Germany appears to do better for its children than Britain does not only from a cross-sectional perspective but also a dynamic one.

There are some similarities between Britain and Germany however. For example, poverty persistence is greater for children than for the population as a whole. Also children in lone parent households or with a non-working household head, in particular, are particularly prone to persistent poverty and chronic poverty (and children in households with a young household head as well, though to a lesser extent). These are precisely the groups that have also high cross-sectional poverty rates. Despite these similarities, arguably the social problems associated with these 'problem' groups are greater in Britain than Germany – because they are form a larger proportion of the population of all children.

Britain and Germany are also similar in that the events associated with the greatest risks of poverty entry for children are the "creation" of a lone parent household, and the loss of labour market income – though the size of the poverty risks differs between the two countries. Moreover in both Britain and Germany, a majority of the poverty entries and poverty exits that we observed cannot be accounted for by several important demographic and labour market events affecting households. Changes in earnings (without associated job changes) seem particularly important however.

Our most difficult task is to move on from the descriptive statistics provided in this paper in the direction of analysis of causes – for example to examine in more detail why it is that British children are more likely to be persistently poor. Differences in labour markets, marriage markets, and social security system, are each likely to be responsible for the findings we have reported. However analytical frameworks for addressing these issues quantitatively are not well developed yet.

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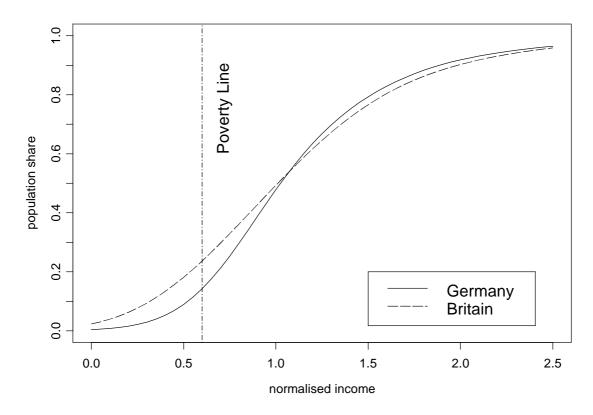
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Table 1
Poverty rates (percentages), by year

Year	All ch	nildren	All persons		
	Britain	_		Germany	
1992	30	17	22	16	
1993	31	19	23	16	
1994	30	14	22	14	
1995	25	20	21	15	
1996	30	21	22	16	
1997	29	18	20	14	

The poverty line is 60% of national median income for the year concerned.

Figure 1
The variation of child poverty rates in 1992 with changes in the level of the poverty line



For each country, the graph shows the cumulative distribution function for the incomes of children in 1992, where incomes have been expressed relative to the national median income ('normalised income'). A poverty line of 60% of national median income corresponds to a normalised income equal to 0.6.

 $\label{eq:Table 2} Table\ 2$  Child poverty rates and population share (percentages), by subgroup

Children's characteristics and year	Britain		Germany	
-	Poverty	Population	Poverty	Population
	rate	share <sup>a</sup>	rate	share <sup>a</sup>
Lone parent household				
1992	71	20	57	11
1993	67	21	61	12
1994	70	20	58	11
1995	63	20	58	11
1996	64	21	67	12
1997	67	21	57	13
Aged less than 8 years				
1992	35	50	19	50
1993	36	50	22	49
1994	34	51	15	49
1995	29	51	21	46
1996	34	51	21	44
1997	33	49	20	43
Household head aged less than 31 years				
1992	57	20	36	18
1993	58	19	30	16
1994	58	17	28	17
1995	50	17	35	15
1996	59	17	36	15
1997	59	15	34	12
Household head not working				
1992	65	31	41	15
1993	65	33	45	16
1994	64	32	38	14
1995	56	30	50	19
1996	67	30	45	18
1997	63	28	40	18
Household head in full-time work				
1992	8	59	8	68
1993	10	55	10	67
1994	10	56	7	67
1995	9	58	7	62
1996	10	56	10	60
1997	11	59	7	59
Household with at least one full-time secondary earner <sup>b</sup>				
1992	10	32	10	27
1993	10	33	9	28
1994	10	35	6	27
1995	8	37	8	26
1996	12	37	9	27
1997	11	39	3	27

<sup>&</sup>lt;sup>a</sup>: Population share = number of children in the relevant subgroup, divided by the total number of children. <sup>b</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

Table 3
Number of years poor out of four (percentages)

3
3
3
7
5
7
4
2
2

Estimates refer to averaged estimates for observation periods 1992-5, 1993-6, 1994-7. <sup>a</sup>: child throughout the observation period. <sup>b</sup>: Characteristics defined at beginning of observation period. <sup>c</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

Table 4
Annual poverty entry and exit rates for children (percentages)

Year	Britain Cross-	Entry rate	Exit rate		Entry rate	Exit rate
	sectional			sectional		
	poverty rate			poverty rate		
1992	30			19		
1993	31	10	28	21	7	40
1994	30	10	25	15	7	43
1995	26	8	30	21	7	29
1996	30	10	23	21	9	33
1997	29	8	26	20	7	35
Average		9	26		8	36

Table 5
Averaged annual poverty entry and exit rates for children, by subgroup

	Britain		Germany	
	Entry rate	Exit rate	Entry rate	Exit rate
All children	9	26	7	36
Aged less than 8 years	10	24	9	35
Aged 8-16 years	9	30	6	37
Lone parent household	35	15	32	19
Household head aged less than 31 years	23	20	16	32
Household head not working	29	16	18	23
Household head in part-time work	11	30	12	33
Household head in full-time work	4	50	4	50
Household with at least one full-time secondary				
earner <sup>a</sup>	4	48	3	53

<sup>&</sup>lt;sup>a</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

Table 6
Child poverty exit rates and proportion remaining poor, by spell duration

Length of poverty spell	All children <sup>a</sup>	Aged less than 8 years at end	Lone parent	Household head aged less than 31	Household head not working	Household head in part-time	Household head in full-time work	At least one full-time secondary
poverey spen	<b>VIII.UI VII</b>	of spell	household	years	not worming	work		earner b
		•		•	<u>Britain</u>			
Exit rate								
1	27	23	17	16	37	43	39	40
2	22	20	14	13	42	39	25	22
3	11	9	10	7	18	49	16	5
4	3	3	2	_	7	_	5	_
Percentage of en	trants to pov	verty remaining po	or					
1	73	77	83	84	63	57	61	60
2	56	62	71	73	37	34	46	47
3	50	56	65	68	30	18	38	44
4	49	55	63	_	28	_	37	_
					<u>Germany</u>			
Exit rate								
1	40	43	19	27	57	51	53	55
2	19	15	10	13	50	40	13	33
3	15	14	4	8	20	52	21	8
4	18	16	6	6	20	55	27	11
Percentage of en	trants to pov	verty remaining po	oor					
1	60	57	81	73	43	49	47	45
2	48	49	73	64	22	29	41	30
3	41	42	70	59	17	14	32	28
4	34	35	66	55	14	5	23	22

Kaplan-Meier estimates pooling all poverty spells (excluding left-censored spells). Characteristics measured at start of spell unless otherwise stated. <sup>a</sup>: children throughout spell. <sup>b</sup>: a secondary earner is a worker who is not the household head (the head need not be working). —: cannot be estimated (no transitions observed).

Table 7
Child poverty re-entry rates and proportion remaining non-poor, by spell duration

Length of	All children <sup>a</sup>	Aged less than 8 years at end	Lone	Household head aged less than 31	Household head not working	Household head in part-time	Household head in full-time work	At least one full-
poverty spell	ciliaren	of spell	parent household	years	not working	work	III Tuii-tiille work	time secondary earner <sup>b</sup>
		or spen	nouscholu	years	Britain	WOIK		Carrier
Re-entry rate					Dittaiii			
1	38	39	50	51	52	45	21	15
2	15	25	35	39	19	25	10	12
3	14	11	37	10	36	16	3	2
<u> </u>	18	36	37	23	33	29	26	5
Percentage of ex	_	overty remaining i		23	33	2)	20	3
1	62	61	50	49	48	55	79	85
2	53	46	32	30	39	41	71	74
3	45	41	21	27	25	39	69	74
4	33	26	13	21	17	27	51	70
·		_0			Germany			, 0
Re-entry rate								
1	24	24	50	27	30	30	17	14
2	17	11	34	23	26	26	11	7
3	8	11	21	19	20	20	4	3
4	15	27	13	48	14	14	12	1
Percentage of ex	iters from p	overty remaining i	non-poor					
1	76	76	50	73	65	70	83	86
2	63	67	33	56	50	52	74	80
3	58	60	26	46	44	41	71	79
4	49	44	23	24	34	36	62	77

Kaplan-Meier estimates using first non-poverty spell observed 1992-7 (excluding left-censored spells). Characteristics measured at start of spell unless otherwise stated. <sup>a</sup>: children throughout spell. <sup>b</sup>: a secondary earner is a worker who is not the household head (the head need not be working). —: cannot be estimated (no transitions observed).

Table 8
Percentage of children entering poverty, among children experiencing specified events

Event	Percentage entering poverty		
	Britain	Germany	
Household became lone parent household	42	51	
Household size increased	7	10	
Number of children in household increased	6	4	
Household head moved from full-time work to no work	26	42	
Household head moved from part-time work to no work	18	14	
Total number of full-time secondary earners in the			
household fell <sup>a</sup>	14	14	
Total number of part-time secondary earners in the			
household fell <sup>a</sup>	9	9	

Events refer to changes between characteristics recorded at this year's and last year's interview. Poverty transitions based on differences between this year's annual income and last year's annual income. Events are not mutually exclusive. <sup>a</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

Table 9
Percentage of children experiencing specified event, among children entering poverty

Event	Percentage	experiencing
	e	vent
	Britain	Germany
Household head became lone parent	21	17
Household size increased	10	6
Number of children in household increased	11	7
Household head moved from full-time work to no work	15	10
Household head moved from part-time work to no work	4	7
Total number of full-time secondary earners in the household fell <sup>a</sup>	15	9
Total number of part-time secondary earners in the household fell <sup>a</sup>	11	14
None of the above	51	59
Household head worked full-time in base year	44	63
Household head worked part-time or full-time in base year	58	81
Gross labour earnings fell by more than 20%, with no job loss	42	42
Gross labour earnings fell by more than 20%, with or without	70	63
job loss		

Events refer to changes between characteristics recorded at this year's and last year's interview. Poverty transitions based on differences between this year's annual income and last year's annual income. Events are not mutually exclusive. <sup>a</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

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Table 10 Percentage of children exiting poverty, among children experiencing specified events

Event	Percentage exiting from pover	
	Britain	Germany
Household head ceased to be a lone parent	45	41
Household size fell	15	9
Number of children in household fell	7	5
Household head moved from no work to full-time work	16	26
Household head moved from no work to part-time work	16	16
Number of full-time secondary earners increased <sup>a</sup>	13	14
Number of part-time secondary earners increased <sup>a</sup>	10	7

Events refer to changes between characteristics recorded at this year's and last year's interview. Poverty transitions based on differences between this year's annual income and last year's annual income. Events are not mutually exclusive. <sup>a</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

Table 11
Percentage of children experiencing specified event, among children exiting poverty

Event	Percentage	experiencing
	ev	vent
	Britain	Germany
Household head ceased to be a lone parent	10	5
Household size fell	3	1
Number of children in household fell	5	4
Household head moved from no work to full-time work	8	2
Household head moved from no work to part-time work	7	8
Number of full-time secondary earners increased <sup>a</sup>	17	11
Number of part-time secondary earners increased <sup>a</sup>	14	8
None of the above	53	69
Household head worked full-time in base year	37	39
Household head worked part-time or full-time in base year	53	70
Gross labour earnings increased by more than 20%, with no job		
change	56	62
Gross labour earnings increased by more than 20%, with or	70	69
without job gain(s)		

Events refer to changes between characteristics recorded at this year's and last year's interview. Poverty transitions based on differences between this year's annual income and last year's annual income. Events are not mutually exclusive. <sup>a</sup>: a secondary earner is a worker who is not the household head (the head need not be working).

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